REPORT OF THE PROCEEDINGS

OF THE

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1890-91.

Newcastle-upon-Tyne:
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1890.

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Wilson, R. H., M.D., Gateshead.
Wilson, W. T., M.D., Derwent Place.

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Prof. Annandale, Charlotte Square, Edinburgh.
Dr. A. Auvard, Rue de Lille, Paris.
Professor Bedson, 18, Moor View, Newcastle.
Byrom Bramwell, M.D., Drumsheugh Gardens, Edinburgh.
Jonathan Hutchinson, 15, Cavendish Square, London, W.
R. T. Jessop, 32, Park Square, Leeds.
J. Spear, Local Government Board, Whitehall, London, S.W.
Clement Stephenson, Sandyford Villa, Newcastle.
Professor Lawson Tait, The Crescent, Birmingham.

The Medical Officers of Her Majesty's Forces in the District.

RULES.

1.—That the Society be called "The Northumberland and Durham Medical Society."

2.—That its objects be—

The reading of papers and discussion on medical and sugical subjects.

The reporting of interesting cases occurring in medical or surgical practice.

The exhibition of microscopic and other specimens of physiological or of pathological character.

The reception of reports of the various medical charitable institutions of the two counties.

The publication, in a cheap and rapid manner, of the Transactions of the Society.

To hold an annual summer excursion.

3.—For the accomplishment of these objects, the members of this Society will meet in the Newcastle Infirmary, at half-past six p.m., on the second Thursday in each of the six months, from October to March inclusive; due notice of each meeting being sent to the members by the Secretaries.

4.—Previously to the commencement of each session, a general meeting of the members shall be summoned, to receive the audited accounts of the preceding year, to elect officers for that ensuing, and to transact any other business connected with the government of the Society. And the officers then elected shall be charged with the management of the business of the Society until the next general meeting.

5.—A special general meeting of the members of the Society shall, at any time, be summoned by the Secretaries, on a requisition to that effect being forwarded to them bearing the signatures of one-fourth of the members.

6.—The officers of the Society shall consist of a President, four Vice-Presidents, two Honorary Secretaries, one paid Secretary (who shall also discharge the duties of Treasurer), and Committee of nine, who shall be annually chosen by ballot (except the paid Secretary) from among the members of the Society. The President and Vice-Presidents shall be elected for one year, and are not eligible for the year following.

7.—At or before the ordinary meeting in March, any member of the Society may nominate in writing any member or members

for the office of President, Vice-President, Honorary Secretary, or members of the Committee. Such nominations to be supported by two other members, and given to the acting Honorary Secretaries.

8.—On or before the 1st day of August, notice shall be sent to each member so nominated, informing him of his nomination and for which office or offices he has been nominated, and asking if he is willing to stand for election. No reply being received within ten days, he shall be taken as consenting.

9.—At the annual general meeting, each member wishing to vote shall send or deliver to the chairman his voting paper, enclosed in a sealed envelope, bearing on the outside the name of the member voting. Previous to the votes being counted, the envelope shall be opened by the Chairman at and in the presence of the meeting, and the voting papers placed in a suitable receptacle.

10.—Any member of a legal recognised medical college shall be admissible into this Society on being recommended by three members, and, at the next meeting of the Society, after the receipt of that recommendation, the votes of members present shall be taken by ballot, and two-thirds of the votes recorded as assenting shall suffice for the election of new members; and that each member shall receive from the Secretary an intimation of his election, together with a copy of the rules of the Society.

11.—Persons not possessed of a legal qualification to practice medicine; Homeœpathic, Hydropathic, and Mesmeric practitioners; dealers in Patent Medicines; persons practising as Druggists, and persons guilty of dishonourable or unprofessional conduct, though in possession of diplomas, shall not be elected members of this Society; or, if already members, may be expelled by two-thirds of the votes recorded by ballot, as specified in Rule 10, at a special meeting convened in accordance with Rule 5.

12.—The subscriptions of each member of this Society shall be ten shillings annually, and the subscription for each year shall be considered due at the annual general meeting, held at the commeneement of each session. New members shall not receive the Transactions of the Society until the entrance subscription shall have been paid. Any member being in arrears of his subscription for one year, shall, after due notice from the Secretary, no longer receive the Transactions of the Society, until his subscription shall have been paid. Any member being in arrears of his subscription for two years, shall, after due notice from the Secretary, be considered no longer a member of the Society; such member to be deemed ineligible for proposal for re-admission as a member of the Society until such arrears are paid. After the accounts of each year shall have been audited, all existing liabilities discharged, and a sufficient reserve fund retained in the hands of the Treasurer,

any surplus remaining shall be transferred to the Treasurer of the Infirmary Medical Library Fund, to be applied by the Medical Committee of that institution in furtherance of the special objects of the Library Fund, as a slight acknowledgment of the great benefit conferred on the members of the Society by the access to the Library, and other advantages so liberally conceded to them by the Medical Officers and Committee of the Infirmary.

13.—No alteration in the Rules shall be made except at a special meeting, or at the annual meeting; due notice thereof to be given in the circular convening the meeting.

14.—Members exhibiting pathological specimens or patients shall limit their remarks to five minutes, and these remarks shall not be read.

15.—The room adjoining the Library shall be used for microscopic and card specimens; to be shewn, as far as possible, before the commencement of the meeting.

16.—Bound copies of the Transactions of the Society for the year shall be offered in exchange to other Societies.

N.B.—Through the courtesy of the Governors and Medical Staff of the Newcastle Infirmary, the members of this Society are allowed the use of the Medical Library, subject to the Library Rules.

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1890-91.

ANNUAL MEETING.

The Annual Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-on-Tyne, on the evening of Thursday, 9th October—Dr. Murphy (retiring President) in the chair.

On the motion of Dr. Redmond, seconded by Dr. Oliver, the following officers (who had been nominated at the March meeting) were duly elected :—President—David Dummoud, M.D. Vice-Presidents—James Murphy, M.D., Thomas Oliver, M.D., Wm. Gowans, M.D., and J. Adamson, M.D. Hon. Secretaries—Jas. Limont, M.B., and J. R. Morison, M D. Committee—Robt. Anderson, M.D., W. C. Arnison, M.D., W. G. Black, M.R.C.S., J. Drummond, M.D., G. Middlemiss, M.D., G. E. Williamson, F.R.C.S., T. C. Squance, M.D., Robert Peart, M.D., and James Smith, M.D.

Dr. Limont (Hon. Sec.) read the annual report for 1889–90 as follows :—

"During the year just ended 23 new members, including one honorary member, were added to the Society. One member died, seven have left the district or resigned. The total number of members is 190, as against 175 at the end of last session.

"Our balance at the beginning of the session was £38 0s. 10½d.; we have received in subscriptions £62 1s., making a total of £100 1s. 10½d. Our expenditure has been £87 1s. 0½d., leaving a balance in our hands of £13 0s. 10d.

"The amount of unpaid subscriptions is about £30."

The report was adopted.

ELECTION OF SECRETARY.

The Committee recommended that Mr. Cathrae (the Librarian to the Infirmary) be appointed Secretary at a yearly salary of £5, with 5 per cent. on subscriptions collected.

On the motion of the PRESIDENT, seconded by Dr. FRAIN, this appointment was made, and it was agreed that the following be the duties of the Secretary :—

1. To receive subscriptions at the meetings, giving members receipts for the same.
2. To receive subscriptions sent by post.
3. To send notices to new members and to members in arrears, drawing their attention to the rule regarding subscriptions.
4. To pay money received into Messrs. Woods' Bank.
5. To submit receipt book, petty cash book, and bank book monthly to one of the Secretaries.

NEW MEMBERS PROPOSED.

BERWICK, GEO., M.B., Infirmary, Westoe.
BOWER, W. G., M.R.C.S., West Boldon.
GREEN, ARTHUR, M.B., Gateshead.
LARKIN, FRANK COLET, M.B., Tynemouth.
LIGHTFOOT, C. L., M.B., Oxford Street.
MACDONALD, J., M.B., South Shields.
WANDS, J., M.B., Stanley.
WEAR, A. T., M.D., Wentworth Place.

It was agreed, on the motion of Dr. PEART, seconded by Dr. DRUMMOND: "That it be an instruction to the Committee to consider how best to arrange that specimens wished to be exhibited before the Society should be divided into two classes, viz., one to be brought before the full meeting as hitherto, and a second to be exhibited as card specimens in the adjoining room."

On the motion of Dr. REDMOND, seconded by Dr. LIMONT, it was agreed: "That it be a recommendation to the Committee that the present mode of arranging the agenda be, if possible, so modified as to avoid the crushing out of papers, and the cutting short or eliminating discussions arising thereon."

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1890-91.

OCTOBER MEETING.

The First Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, October 9th (immediately after the Annual Meeting).

Dr. Murphy (retiring President), on leaving the chair, said it gave him the greatest pleasure to introduce his successor, Dr. David Drummond.

Dr. Drummond thanked the Society for the honour it had done him in electing him President.

Votes of thanks were accorded to Drs. Murphy and Oliver for their valuable services as President and Secretary respectively.

It was agreed that a communication from Dr. Rentoul, of Liverpool, lie on the table.

Dr. Limont reported that Mr. Clement Stephenson had presented to the Society the "Annual Report of the Veterinary Department of the Board of Agriculture." The Secretary was directed to convey to Mr. Stephenson the thanks of the Society.

NEW MEMBERS ELECTED.

Berwick, Geo., M.B., Infirmary, Westoe.
Bower, W. G., M.R.C.S., West Boldon.
Green, Arthur, M.B., Gateshead.
Larkin, Frank Colet, M.B., Tynemouth.
Lightfoot, C. L., M.B., Oxford Street.
Macdonald, J., M.B., South Shields.
Wands, J., M.B., Stanley.
Wear, A. T., M.D., Wentworth Place.

CANCER OF TONGUE.

Dr. Robertson: Mr. President and Gentlemen,—The case I have to shew you here is one of excision of the tongue for cancer. Shortly, the history of the case is as follows:—Matthew T., æt. 56, ostler, observed pain in his tongue seven months ago, with increased

salivation. In a short time he could not protrude his tongue, every movement of which caused pain, On July 2nd, 1890, when he was admitted into the Surgical Home of the Throat and Ear Hospital for treatment, the tongue, ulcerated in front and indurated, was found immovably bound down to the floor of the mouth and lower maxilla. There were also found an enlarged submaxillary gland, and on each side of the neck two large masses of enlarged cervical glands

August 7, 1890: The anterior three-fourths of the tongue was removed with scissors, and after extracting three of the front teeth, the floor of the mouth was cleared out of all suspicious tissue.

The patient recovered well from operation. The front of the stump of the tongue was swabbed with iodoform collodion, and a sublimated lotion ordered to wash out mouth. From the first the patient took nourishment per orem fairly well, and was sufficiently recovered to be sent home on the fifth day. There his convalescence was interrupted by an attack of erysipelas on the right side of the neck, from which he recovered in about fourteen days.

Dr. J. Drummond: If I might be allowed to criticise Dr. Robertson's case, I should do so from two points of view. With regard to the relief obtained from all the disagreeable symptoms attending cancer of the tongue, no doubt this man is altogether more comfortable, and will die an easier death than if nothing had been done; but I doubt if life has been prolonged. The disease has attacked the submaxillary and cervical glands, perhaps with increased vigour, since the end of the tongue has been removed. I would suggest that the structures in the floor of the mouth might have been more completely removed if the jaw had been split in the usual manner, and in this way have got the diseased structures in the floor of the mouth more thoroughly removed.

Dr. Murphy also criticised the result.

Reply:—The use of the hæmostatic forceps rendered the operation well nigh bloodless, and were employed in the following way: The upper half of the thickness of the tongue was cut through with scissors, and after freeing the tongue all round, and drawing it out of the mouth, the forceps were made to grasp the lower vascular half of the tongue. All the parts distal to the forceps were now cut off, and the linguals, easily seen, were picked up and ligatured, with the loss of little more than an ounce of blood.

The operation has not freed him from cancerous infection, which it is to be feared has reached the glands; but I can claim for it that it has eradicated the disease from the tongue and the floor of the mouth, from where it probably sprang and spread to the inferior surface of the tongue.

I am indebted to Dr. Hepworth, who sent me the case; and to Drs. Metcalf, Burdon, and Hardy, for valuable assistance during the operation.

EXCISION OF ASTRAGALUS.

Dr. VANN: Mr. President and Gentlemen,—This patient was admitted into the Durham County Hospital, under my care, in May, 1889, suffering from the effects of a fall of heavy metal on his left leg.

On examination, the astragalus was found dislocated forwards and inwards, the skin being tightly stretched over it.

Reduction being found impracticable, an incision was made over the dislocated bone, the remaining attachments divided, and the body removed. The fragments of the head, which was fractured, were also removed. A drainage tube was inserted, the wound closed, and antiseptic dressings applied.

Recovery was somewhat tedious, but eventually complete.

He can now walk easily, and without perceptible limp, for 12 miles or more.

Mr. RUTHERFORD MORISON: Dr. Vann is to be congratulated on the result of his operation. It is astonishing how useful a foot is left after the removal of the astragalus. I have seen several, but never a better result.

CASE OF POPLITEAL ANEURISM.

Mr. RUTHERFORD MORISON shewed, for Dr. Fielden, of Shildon, a case of popliteal aneurism. The case presented all the ordinary classical signs of spontaneous popliteal aneurism. The only point peculiar about the case was that the swelling had followed an injury by a piece of stone which struck the leg behind the knee. It was questionable whether this was the cause. As to treatment, Mr. Morison expressed a strong opinion in favour of immediate ligature of the femoral in Scarpa's triangle.

Dr. MURPHY was in favour of pressure.

Mr. WILLIAMSON and Dr. HUME expressed an opinion in favour of ligature.

Dr. VANN: I am disposed to favour Dr. Morison's suggestion to treat this case by ligature, without attempting the cure by digital pressure. I have assisted at the treatment of cases of femoral and popliteal aneurisms by digital pressure, but in each case subsequent ligature of external iliac or common femoral arteries has been required, and performed with a successful result.

Dr. J. DRUMMOND: As the question as to the best mode of operating in popliteal aneurism has arisen, it might be interesting to know the history of a case which Dr. Gowans operated upon at

the Ingham Infirmary. The patient had a "specific" history. A swelling which had appeared in the popliteal space was diagnosed as aneurism. The femoral artery was first tied in Scarpa's triangle. Pulsation reappeared after some time. Dr. Gowans then cut down on the sac, turned out the clot, and tied the artery at both ends. The case did well, the wound healing by first intention. I hope Dr. Gowans may be induced to shew the case at next meeting.

Mr. Walter Ridley said in regard to popliteal aneurisms which were of traumatic origin, the treatment had been recently adopted at St. Bartholomew's, after failure of pressure in Scarpa's triangle, of tying the popliteal at the neck of the sac in the popliteal space; the artery in each case in which this had been performed having been found healthy at that spot, and the operation successful.

In replying to Mr. Williamson's remarks, he pointed out how ligature in popliteal space differed from that in Scarpa's triangle when following previously-applied pressure. The effects of pressure to the superficial femoral being first a matting and condensation of tissues over line of incision; and secondly, the establishment of a very free collateral circulation with the artery below, by means of descending branches of profunda and anastam otica magna—the artery between pressure and sac being as patent and full of blood as ever.

This condition would greatly prejudice any ligatnre of superficial femoral but have no influence on ligature of popliteal artery.

Drs. Drummond, Williamson, A. E. Morison and Bailes also discussed this case.

Mr. Morison, in reply, said his reason for advocating ligature was the belief that it was safe, sure, and rapid. It should be done before pressure was tried, or the vessels by which the collateral circulation was carried on might become enlarged to such an extent as to allow of too free a circulation through the aneurism, and consequently failure from insufficient deposit of fibrin in the sac.

SUBCLAVIAN ANEURISM SPONTANEOUSLY CURED BY SLOUGHING.

Dr. Oliver: This man, Mr. President, I have exhibited on two occasions to the members of the Society, but the extremely interesting and unusual course which events have taken since then must be my excuse for bringing him again under your notice. When I exhibited him for the first time it was to shew that treatment by a galvano-puncture had brought about coagulation of blood in the interior of the sac of his subclavian aneurism. This was most effectually induced by my colleague, Mr. Williamson. Pulsation again returned in the sac, and the tumour became much larger: the patient, meanwhile, having lost all power in the right

arm, which, as you see, is still paralysed, and is also extremely emaciated. At this stage of increase in size of the aneurism, and the patient being continually racked in pain owing to involvement of the brachial plexus in the sac, I brought him before this Medical Society when the Foreign Examiners of the University of Durham happened to be here. The case gave rise to considerable discussion. Prof. Annandale recommended the operation of cutting down, tying the vessel, and of removal of the arm. To this my colleagues scarcely assented, and so things were allowed pretty well to run their own course—patient, meanwhile, returning to his home again. One night, whilst I was coming into the Infirmary, I was surprised to see this man lying on a stretcher in the waiting room, so altered that I scarcely knew him, looking extremely pale and collapsed. No pulse, almost, could be felt at the left wrist, and on looking at his aneurism it was clear that the sac had burst internally, and that we had to do with a diffused aneurism. It was the size of a cocoa nut, and on the uppermost surface it was bluish-black in appearance and seemed on the point of rupturing. I kept him quiet for a few days by means of small doses of opium, and I gave him very little liquid food. I watched the case closely, as the skin was so thin that rupture appeared to be imminent. To my surprise, when I went to his bed in the ward one morning I found he had gone; he had left the Infirmary, having been taken home by his friends that morning. Every day I expected to hear of the rupture of his aneurism, and in consequence of this his death. To my great surprise, however, he called to see me at the College of Medicine the other day, and this is the history: It appears that the day before he left the Infirmary, Dr. Kimpster had noticed that blood was oozing from the surface. When the patient got home, he was seen for the next few days by the Dispensary surgeons (Drs. Ridley and Bailes). Seeing that blood was beginning to ooze, they applied tannin and collodion, and they left some with the patient, instructing him and his friends to apply it should the bleeding continue. The patient applied it himself. One day, when he was pulling off his shirt, the tumour being firmly adherent to it through the plastering of tannin and collodion, he was surprised to find that he had lifted off his sloughing subclavian aneurism as well. You can see where the tumour has been removed from. This large ulcer marks the seat of the slough, and projecting into it, on either side, are the two ends of the clavicle, part of which, as well as brachial plexus and all adjoining tissues, had become either disintegrated by, or were incorporated with the sac of the aneurism, and had come away with the slough. The man is now making a good recovery and is likely to live. There is only, now, the ulcer to heal; but the manner in which the aneurism has cured itself is, in my opinion, unique. Very little bleeding occurred at the time of separation of the slough.

Mr. Walter Ridley remarked that on the case coming under the care of the Dispensary, he was asked to see it by Dr. Bailes. The integuments covering the aneurism at that time were just beginning to shew a faint red blush, and were distinctly another tribute to the "vis medicatrix naturæ."

SPASMODIC WRY NECK.

Dr. Limont: This patient, as can be at once seen, is the subject of spasmodic wry neck. The affection has been present about a year. He is a miner, and aged 64. There is no family or personal history of nervous affections. In his occupation of hewing coal he worked with his chin rotated towards the right shoulder. For forty years he followed this employment; but for three years before the movement began he had been engaged carrying heavy planks on his shoulder, and he suggests that he was injured by the planks being thrown heavily upon his shoulder. Ten years ago he injured his head by running it violently against a wall.

The first thing that attracted his notice was what he calls "stiffness" of his neck. A few days later slight movements began. These gradually became more marked.

At the present time he has little comfort night or day; the movements are never absent during the day for many minutes together. Even when he is lying down they are troublesome, and when he is sitting, standing, or walking they are much more severe. The jerkings give rise to considerable pain about the occiput and down the back of the neck. He has little power of controlling the jerking; as example, he cannot steady his head in eating, and frequently "misses his mouth." Difficulty in getting sleep is one of his greatest troubles. The left sterno mastoid is the muscle most markedly affected; hence the chin is rotated to the right shoulder, and the occiput towards the left shoulder. On the right side the platysma, biceps, and deltoid are distinctly affected. There is also retraction and elevation of the right corner of the mouth. Under the influence of excitement some other muscles also jerk. Sometimes he staggers in walking, and does so always towards the right.

An interesting point in the case is the advanced age at which the disease appeared. According to Gowers, it is rare for it to begin after fifty; and the oldest patient in whom he had seen it begin was aged sixty.

Interesting also is the question as regards causation. Is it the result of the peculiar position assumed for so many years, or the result of injury to the neck; or is it independent of both of these? I would like to hear the opinion of members as to the probable pathology of the condition. Is it to be regarded as a lesion of the cortical centres, of the centres in the medulla and cord, or of the nerves? That some of these cases are due to cortical lesions, and

others to lesions of the lower centres, is a general belief. That those in a third set are due to lesions of the nerves seems more probable now than it did a few years ago. Dr. Drummond shewed a case last Session of tremors of the arm, which was thought to be due to a peripheral lesion. Gowers writes, with regard to facial spasm: "We have seen that it may result from pressure on the nerve trunk, but we do not know how such pressure may act." He then suggests three ways in which it might act.

I would like to hear the experience of members in the treatment of these cases. This man has had large doses of pot. brom., and has also had the continuous current applied, but without any benefit. Some of you may remember a traumatic case shewn by Mr. Page in 1887, in which an extremely good result was obtained from nerve stretching. In that case, however, only the muscles supplied by the spinal accessory were affected. This is certainly not a promising case for such treatment.

Dr. Gibson remarked that probably the case was one of functional derangement, and suggested the employment of massage, quinine, and counter-irritation as remedies.

The President said that he was much interested in the case shewn by Dr. Limont. He thought the suggestion as to pathology thrown out by Dr. Limont was very important: he referred to the possibility of the spasm resulting from local injury. In his (the President's) opinion there were three groups of cases of spasmodic torticollis met with clinically—the purely functional (hysterical), the peripheral, and those arising from central lesions. He reminded the members of a case he had shewn during the previous session, that of a man whose arm was injured by a machine belt, the muscles of which were affected with marked tremor. This case, he thought, might fairly be compared with some cases of spasmodic torticollis.

PAGET'S DISEASE OF THE NIPPLE AND BREAST.

Dr. Hume shewed a series of sections illustrating the histology of this disease. He stated that in the St. Bartholomew's Hospital Reports for 1874 Paget first drew attention to the occurrence of carcinoma of the breast as a sequel to intractable "eczema" of the nipple. In the cases in which this sequence is observed, the affection of the nipple may continue and resist treatment for a period varying from months to years before the development of the tumour in the breast takes place. The important questions in these cases are whether the nipple disease is not of malignant character from the commencement; and, further, if it be malignant, what is the particular mode in which it extends into the substance of the gland. Upon the answer to these questions naturally depends the line of treatment which should be followed in the

early period of the complaint. The patient from whom the specimens shewn were derived was a lady aged 43, the mother of several children. She first consulted her family doctor for a crack on the left nipple, in November, 1889. This was the beginning of an eczematous condition which spread over the nipple, and was not improved by treatment. In the spring of this year she consulted another medical man; and was by him seen and carefully examined in the end of July. At that time there was no breast tumour and no enlargement of glands. She returned from the seaside a month afterwards, and there were then found a nodule in the breast and several enlarged glands in the axilla. She came under Dr. Hume's observation in the beginning of September. The nipple was protruding, with a red, glazed, and granular surface. In the breast, above the nipple was a hard nodule, with, apparently, an unaffected interval between it and the nipple. Several glands in the axilla were enlarged.

Sections had been cut from the nipple, from the part between the nipple and the nodule (in which intermediate part the galactophorus tubes were, to the naked eye, greatly dilated), from the nodule, and from the enlarged glands. The appearances seen in these different parts were as follows:—(1) As regards the nipple, in some portions the superficial layer of the epidermis persisted; in others it had disappeared. In the malpighian layer was a new cell-growth of uniform thickness, and consisting of comparatively small-sized epithelial cells. (2) The dilated galactophorous ducts were—many of them—filled with cell *debris;* in nearly all the epithelial lining consisted of several layers of cells of rounded form; and in some, tuft-like masses or "villi" projected into the luma. (3) In the nodule, ducts and acini, with proliferating epithelium, were found; but for the most part the nodule consisted of an infiltration of small cells, apparently the result of irritative action. (4) In the axillary glands the enlargement consisted, as in the case of the nodule, mainly of small cell infiltration, but in this were groups of larger (epithelial) cells.

The conclusions drawn from the histological appearances were that the affection of the nipple had been carcinomatous from the beginning; that the disease had been propagated along the ducts; that the form of carcinoma resulting was that variety known as duct cancer or villous cancer; and lastly, that an abundant small cell infiltration accompanied the development of the carcinoma.

The clinical history of the case made it probable that the growth of the breast tumour and the enlargement of the axillary glands occurred almost simultaneously. If this were so, it would shew that both breast nodule and glandular enlargements stood in the relation of secondary developments to the primary disease in the nipple. Further, the propagation of the disease along the ducts from the nipple is necessarily insidious in its character; and these

ducts may be widely affected long before any swelling is formed in the breast. It follows that mere removal of the nipple, or any proceeding short of excision of the whole mamma, can offer no security against recurrence, even in an early period of the disease.

DR. DRUMMOND'S SPECIMEN OF SARCOMA OF LIVER, ETC.

The PRESIDENT shewed a large sarcomatous tumour of the right kidney, removed from the body of a man aged 42, with the liver, inferior vena cava, and heart. The interest of the specimen lay in the fact that the new growth had passed along the renal vein and entered the vena cava (both of which were entirely blocked and enormously distended), along which it had ascended so as to bulge into the right auricle.

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1890-91

NOVEMBER MEETING.

The Second Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, 13th November, 1890—Dr. Drummond (President) in the chair. Fifty members were present.

NEW MEMBERS PROPOSED.

George Metcalfe, M.B., B.S., 119, Westmoreland Road, Newcastle.
W. G. Richardson, M.B., F.R.C.S., Newcastle.
J. V. W. Rutherford, M.B., C.M., Eldon Square.
Donald Wingate, B.M., C.M., Wingate, Co. Durham.

Dr. Hume exhibited an aneurism of popliteal artery cured by ligature of superficial femoral.

Dr. Gowans related a case of cure of large popliteal aneurism after failure by tying femoral artery. There w s a history of ague and syphilis. Swelling observed two months 14th July ligatured femoral at apex of Scarpa's triangle. Six or seven days after ligature pulsation noticed. Aneurism had then consolidated in upper but not lower portion. In September old operation—ligature of artery above and below aneurism—performed. Operation difficult, but successful.

CASE OF LUMBAR NEPHRO-LITHOTOMY.

Dr. C. Wicks: Mr. President and Gentlemen,—The patient I am about to shew you, is a man, aged 36 years, bootmaker, on whom I performed the operation of lumbar nephro-lithotomy some two and a-half months ago.

He first consulted me about twelve months ago for a pain in the right lumbar region, supposed to have been caused by a strain received while stepping into a trap. This was temporarily relieved, but soon returned much exaggerated and of a distinct colicky nature. Fearing some kidney trouble, the urine was examined, but nothing abnormal found.

The attacks continued to recur at regular intervals of five weeks, but were always relieved by an alkaline mixture with belladonna.

Some time afterwards I again saw the patient, this time suffering from a very severe attack. With the lumbar pain he had pain along the right ureter, and at point of penis, with slight difficulty on micturition.

Hot hip baths were ordered, and twenty drop doses of tincture of belladonna given internally, with the result that he passed this stone which I shew you ; its weight is seven grains.

He continued well and free from pain until four and a-half weeks after, when he complained of pain in the left lumbar region so severe that it was necessary to give hypodermic injections of morphia. Associated with this pain, he had pain along left ureter, and at point of penis, together with great prostration and sickness. The urine was again examined, but with a normal result. The pain continued ; the morphia was discontinued, and hot hip baths and belladonna substituted as on the former occasion.

The pain became so severe, and the general condition so grave, that it was absolutely necessary something should be done to relieve the patient ; and having made up my mind that there must be a stone in the left kidney, I determined to make, at least, an exploratory incision, which, should there be no stone, might and has been known to relieve the pain. Having had a consultation with my friend, Mr. Torrance, we agreed, and with the consent of the relatives, I accordingly performed the operation, with the result of finding this stone embedded in the secreting substance of the kidney, at its lower border. The weight of the stone is forty-seven grains. A drainage tube was inserted, and the wound dressed with dried boracic lint. There was little or no discharge through the tube, and five hours after the operation the patient was comparatively well and passed half-a-pint of clear urine.

The wound healed by the first intention, except where the tube was inserted, and this was removed on the tenth day. The highest point of temperature, after the operation, was 100·4 Fahr., and the pulse 90.

The points I consider of interest are :—

(1). The absence of any symptoms in the urine in the case of each stone.

(2). The recurrent attacks of pain at almost time-regulated intervals of five weeks.

(3). The almost entire absence of hæmorrhage during the operation, only one small vessel having to be ligatured.

(4). The rapidity with which the wound healed, and the patient's general convalesence, he having been up on the 17th day and out on the 24th day after operation.

He is now quite well and free from pain.

CASE OF ERASION OF THE KNEE.

Mr. WILLIAMSON said: Mr. President,—This man is a miner, 22 years of age. He injured his knee some years ago, and from time to time it has inflamed and laid him off work. His last attack came on at Christmas and grew steadily worse until he was admitted into the Infirmary in April last. The knee was then much swollen, as much swollen as in an extreme case of hydrops articuli, and he suffered great pain. There was evidently extensive disease of the synovial membrane, but I thought that the bones were not much affected. I had been on the look-out for a case of the kind for some time, and I had made up my mind that in the event of meeting with one, I would remove the diseased parts completely and do nothing to the ends of the bones if they seemed to be healthy. The knee-joint was opened by the usual semilunar incision, and the synovial membrane was found to be greatly thickened. In some parts it was more than an inch thick, and it was studded with numerous small abscesses. The whole of the synovial membrane was clipped away (a work of some difficulty) and as the disease extended into the pouch under the inner hamstrings, the crucial as well as the lateral ligaments had to be cut. These ligaments were largely involved in the disease and they had to be in a great part removed, leaving little more than skin and tendons to connect the bones. With the exception of a little erosion the cartilage appeared to be healthy, and beyond scraping the diseased spot it was not touched. After a good deal of trouble from general oozing the wound was closed. The ligamentum patellæ was sutured with silk. The limb was kept at rest on a back splint, and did well. The knee is now quite stiff; as stiff, I think, as if it had been excised.

In spite of what Dr. Murphy says about the feats of London and Paris surgeons in scores of cases, I must say that after cutting the ligaments away and leaving the bones so loosely connected, I felt a little doubt about the firmness of the knee subsequently. I have not met with any account of an operation in which this was so freely done; but after this experience I should not in the future excise the ends of the bones unless they were diseased.

CASE OF ACNE.

Mr. WILLIAMSON said: Mr. President,—This patient came into the Infirmary to have a sebaceous cyst removed from the scrotum, and he called our attention to an eruption on his back. It is the severest case of acne that has come under my notice, and I think that the members will be interested in seeing it. He is 33 years of age, and is employed in tar works, to which he attributes the eruption, but as he is in a colour shed and does not come in contact with the tar at all, I doubt whether that has anything to do with it.

Dr. Lightfoot: How does Mr. Williamson propose to treat the latter condition? I have found the ichthyol preparations very useful.

In answer to a question respecting treatment, Mr. Williamson said that he proposed to have the man's back well scrubbed and then he would apply a weak sulphur ointment and give sulphide of calcium internally.

Dr. Murphy exhibited as card specimens (1) 12 inches of gangrenous bowel removed during a herniotomy; (2) ovarian abscess; (3) large mulberry calculus with very sharp spines; and also exhibited the middle lobe of a prostate, removed from a patient æt. 76, and, in describing the operation, shewed a very beautiful preparation, in spirit, of a bladder with an enlarged middle lobe. He then described the late Professor McGill's operation of prostatectomy, and said it was founded on the fact that however large or small a prostate was that obstructed the flow of urine, the portion that actually caused the obstruction always protruded into the bladder, and, hence, was a vesical and not a perineal overgrowth. The varieties are (1) a uniform circular collar round the urethra; (2) a sessile enlargement of the middle lobe, situated partly in the posterior half of the prostatic urethra, and partly in the position of the uvula vesicæ; (3) a pedunculated enlargement of the middle lobe. Petersen's bag was introduced into the rectum and from 8 to 10 ounces of water injected, and the bladder well distended with a weak boracic solution; supra-pubic cystotomy was then performed, and the middle projecting lobe removed with a raspatory and the finger nail. The hæmorrhage was trifling.

Dr. Murphy remarked in discussing Dr. Hume's case of lithotomy, that in children the size of the stone could be accurately determined by the bimanual examination, one finger being in the rectum.

Dr. Murphy introduced a man with well-marked leucoplakia of the tongue, in which there was a small papilloma and a patch of epithelioma the size of a shilling, and said it was the sixth case of leucoplakia in which he had observed epithelioma follow.

Dr. Murphy also introduced a woman, æt. 35, in whom he had done an anterior median colotomy (notes of which will be found in his paper on abdominal surgery) 18 weeks previously, and raised the question as to whether it would not be advisable in all cases to do median colotomy, as he believed there was always sufficient length of mesentry, and by the strain on it it prevented prolapse, as well exemplified in this case, and also because in the median operation there was a more acute flexure of the bowel, thus making a better spur.

The explanation of her having passed large motions up to the time of complete obstruction is to be explained by the busy lives these women lead—far too busy to attend to the evacuation of their bowels till a large mass is accumulated in the rectum below the seat of obstruction.

ULERYTHEMA ACNEIFORME.

Dr. V. H. Rutherford: J. W., girl, aged 18, with numerous small, pale, roundish, scar-like, superficial pits, situated chiefly about the malar prominences of the cheeks, with a few isolated pits under the right lower jaw, and at the junction of the forehead with the hairy scalp. The capillaries over the left malar bone are perceptibly injected. Each pit presents a fine meshwork, and is separate from its fellow by relatively elevated ledges of healthy tissue, the whole of the affected area presenting a fine reticulated or worm-eaten appearance. No comedones visible.

The history revealed that over three years ago numerous red raised spots first appeared on the right cheek, lasted for three or four weeks, became pale and gradually disappeared, without the formation of matter (pus), leaving the present cicatricial condition.

The treatment began six weeks ago, when the case first came under notice, and consisted of the application of creosote and salicylic plasters (20-40).

The anatomy is summed up by Professor Unna as follows:—"The process begins with inflammatory phenomena, condensed cellular infiltration, especially around the follicles, with dilatation of the lymph spaces, then thinning and degeneration of the fibrous tissue; hypertrophy of the muscular and elastic tissue; at the same time hyperplasion of the epithelium of the prickle layer and hair follicles, with consecutive intense hyperkeratosis of the same, and formation of cunedones. Finally, after the absorption of the infiltration, and of the excess of the elastic tissue, the affection heals, with deformity produced by the great epithelial proliferation and hyperkeratosis;" and the disease classified by him ulerythema because of its "beginning with imflammatory erythema, and leading without suppuration and ulceration to cicatricial atrophy;" and acneiforme, because of its "follicular origin, with formation of cunedones."

Dr. Gibson remarked that the case was not a very distinct example of acneiform erythema. The erythema was not pronounced, and the effected sebaceous follicles were not numerous. He suggested that the free use of soft soap, and coarse, strong, stimulating applications to the affected parts, were more likely to act curatively than any internal remedies.

Professor Philipson said he was in agreement with Dr. V. Rutherford as to the designation of the case. In diseases of the

skin the manifestation was often a combination of two conditions, one being more pronounced than the other. In the case under consideration there was a combination of erythema and acne, the latter being the more marked, hence the reason of placing the case in the class of acneus or sebaceous diseases. Dr. Rutherford had referred to the treatment by external applications. He would like to know what internal treatment had been employed. In his experience, arsenic administered internally was of the greatest service in this form of acne.

Dr. Redmond observed that Dr. Philipson's enquiry as to whether arsenic had been administered internally anticipated a remark he was about to make, viz., that, in general practice, one not unfrequently meets with troublesome chronic cutaneous affections of a more or less undetermind type, and, in such, he had often found the exhibition of a somewhat old-fashioned preparation—"Donovan's solution"—give extremely satisfactory results.

TWO CASES OF CLEFT PALATE.

Dr. W. Robertson: These two cases require few remarks. They have both been successful so far as restoring the soft palate is concerned. In the young girl, aged 12, very considerable facial improvement has set in. She was operated upon a year ago, and now speech is clearer.

The young man, besides shewing improvement in his appearance, speaks much better and more distinctly. The operation (four years ago) in his case was done entirely under cocain. In neither case was the presence of adenoid growths distinguished in the postnasum.

The operation in each case was done in two stages; in the first stage the palate was transfixed and freed from its lateral attachments, leaving only a small portion at its inferior border for nutritive purposes. The knife is introduced under the Hamular process straight through the tissues into the postnasum, and then carried down to within a quarter of an inch of the horizontal border. No special attempt is made to sever any particular muscle, the object being to so thoroughly separate the palate, as that after incision it shall hang loose. Sometimes free hœmorrhage takes place, but is controlled by hot water, ice, or (if necessary) turpentine or perchloride. Next day the edges of cleft are vivified and united. In both cases the whole length of edges healed, and a sound structure in each case is left. A small pin-point aperture remains in each case, near border of hard palate.

CEREBRAL ABSCESS FROM OTORRHŒA.

Wm. Robertson, M.D.: Mr. President and gentlemen,—Through the courtesy of Urban Pritchard, who has put the patient under

my care, I am enabled to bring before your notice this very interesting case of trephining for cerebral abscess arising from otorrhœa.

Much might be said about the operation that was performed, which in its success seems to have been ideally perfect. The principles followed out would seem to be the maturest extent in cerebral operations. Two things are particularly interesting in this respect, viz., that no drainage tube was used and no bone introduced into the trephine wound. So far as my experience goes, the use of bones chipped or otherwise, no matter how carefully prepared, unless decalcified, is most pernicious.

The wound healed up in six days and thus prevented the development of hernia cerebri. It is to be observed also, that notwithstanding the large size of the trephine wounds no œdema of the brain took place, contrary to views expressed by Bergmaur. The aphasic attacks referred to in the report have now well nigh disappeared. Perhaps a little want of expression remains on the left side of the face. A certain amount of ear trouble still remains, such as would indicate a diseased condition of the ossicles of the attic chamber of the tympanum. The optic discs are normal.

In answer to Dr. Drummond, it is expressly stated in the body of the report of case that the dura mater was found intact, the pus lying outside the dura. We know well that when necrosis of the pars petrosa takes place, that pus forms between dura and bone, the former becoming strengthened by granulation tissue. That such has been the process in this seems indicated by the fact of the long continuance of the otorrhœa; and even now, though the discharge has ceased, yet cholesteatomatous masses are continually protruding beneath the remnant of the membrana. I quite agree with Dr. Lightfoot in urging that incontrollable forms of otorrhœa perforation of mastoid antrum should be performed, but I submit, with judgment, for not in every case is the antrum involved in such cases. In a case of cerebral abscess operated on by Mr. Cheyne, the mastoid antrum was found intact.

An operation now frequently performed, viz., excision of drumhead and ossicles gives great satisfaction in many obstinate cases of otorrhœa, and ought to be had recourse to before the far more serious operation of trephining is tried, *i.e.*, in chronic otorrhœa where no acute symptoms are present in the mastoid.

Dr. Lightfoot: With regard to Dr. Drummond's remark that he has never met with a case where pus has collected primarily between the dura mater and the skull, I think Prof. Hartmann, of Berlin, has described cases where this has undoubtedly occurred. In cases of chronic middle ear suppuration it is not uncommon to find all kinds of foreign bodies mixed up with the discharge in the external canal, such as hay seeds, portions of wheat, barley, larvæ, &c., &c. These are often described as the cause of the

disease, whereas their presence is merely accidental. This case shews the danger of allowing middle ear suppuration to go on unchecked. In cases where the simpler forms of treatment fail the mastoid should be trephined, the operation being a successful one and its danger to life slight.

TWO CASES OF CEREBRAL ABSCESS RESULTING FROM LONG-STANDING OTORRHŒA; OPERATION; RECOVERY.

(King's College Hospital, London.)

REPORTED BY URBAN PRITCHARD.

The following cases, occurring within a short time of one another, exhibit so many features of interest, with regard to symptoms, operations, and results, that I need not apologize for recording them.

To my colleagues, Professors Rose and Cheyne, under whose care the patients were placed, I am much indebted for their kind permission to use the notes of the cases taken during the patient's stay in King's College Hospital.

CASE I.—J. B., a draper, aged twenty-three. Had been subject to frontal headache and pain in the left ear from the age of six; for the last ten years there had been a discharge from the ear, and the headache had increased in severity.

In April, 1889, after catching cold, the ear discharge became more profuse, and the pain worse, and there were also a series of attacks of partial loss of consciousness, lasting some fifteen or twenty minutes, during which he lost all power of speech.

On June 17th he had a sharp convulsive attack, with marked twitching of the left side of the face, but no paresis and no loss of sensation ensued. The actual convulsion only lasted a few minutes, but he remained in a semi-unconscious torpid condition up to his admission to the hospital, and, the night before, had six "fits," during which he moaned, screamed, and threw himself about.

He was admitted to King's College Hospital, under Mr. Rose, on June 23, 1889.

When first seen, he was drowsy and incoherent, comprehending and answering questions with difficulty; there was an abundant purulent, offensive discharge from the left ear, tenderness on pressure most marked about two inches above the meatus, slight facial palsy; the tongue was thickly coated. There was no absolute optic neuritis, but the edges of the optic disc were somewhat vascular; no paralysis of the extremities, and tactile sensation appeared perfect.

The same day (23rd), at 12·30 p.m., Mr. William Rose proceeded to operate. The skull was trephined at a spot two inches above and one half inch in front of the meatus—*i.e.*, over the tender area; the dura mater, which appeared to be quite healthy, was

opened, but no pus followed repeated exploratory punctures into the brain substance with a trocar and canula. The trephine was then applied an inch behind the posterior margin of the original opening, and offensive pus was found outside the dura mater, which was of course left intact. By further use of the trephine and of the bone forceps this opening was enlarged, and finally, in order to make absolutely certain of free drainage, the trephine was applied, for the fourth time, over the occipito-parietal margin. The whole wound was then thoroughly irrigated with weak carbolic solution, and dressed with perchloride gauze.

After an operation of this magnitude, the patient, as might have been expected, was much collapsed, and long unconscious. His subsequent recovery was complete and uninterrupted, and was chiefly interesting because of the opportunity it afforded for observing the gradual improvement in his mental faculties. On June 27th he was unable to repeat or understand words spoken to him, but comprehended gestures, and could read. On 29th he was able to write for the first time. The wound healed perfectly, the discharge from the ear ceased immediately after the operation, but reappeared on June 29th. The mental condition gradually improved, and he was made an "out-patient" under my care on August 20, 1889. At this date there was still considerable discharge from the ear, and the tympanic membrane was perforated, these conditions only yielding to persistent treatment with alcoholic injections and instillations, insufflations of boric acid, and repeated removals of soft polypoid masses.

On March 27, 1890, his condition was as follows, viz.: The ear was quite healthy and dry, his general health good, and he did not complain of headache. Since recovering from the operation he has been subject to periodic attacks of aphasia, of about twenty minutes' duration. These attacks at first occurred about once a fortnight, but have gradually become much less frequent. Except for a certain slowness of speech, the survival probably of the imperfect cerebration, which was so marked a feature of his convalescence, he is, intellectually quite clear and vigorous.

Case II.—A young man, aged twenty-six, a coal-porter, for the last seven or eight years had suffered from purulent discharge from the left ear, and on two occasions during this period was laid up with intense pain in the ear. These attacks lasted about a fortnight, and the last, in the spring of 1889, was associated with swelling of the left side of the neck.

On September 7, 1889, he was suddenly seized with intense pain in the ear and left side of the head, and the following day he appears to have had two distinct rigors. On September 9th he vomited, and there is a confused history of a "fit" occurring on the 10th, but this does not seem to have been associated with convulsions or twitchings of any sort.

He was admitted to King's College Hospital on September 11, 1889, under Mr. Cheyne.

During the first few days of his residence in the hospital there was a complete absence of those characteristic cerebral symptoms which formed so marked a feature in Case I. He complained of intense pain in the head, the focus of which pain appeared to be over an area of about half an inch in diameter, situated in the left temporal fossa, just above the middle of the zygoma. He said he "felt ill," was disinclined to get out of bed, and when he did so, was giddy and hardly able to stand. On the other hand, the ear discharge was profuse, purulent, and offensive, the left membrana tympani was destroyed, and there were numerous polypoid growths springing from the middle ear. There was no optic neuritis, or paralysis of any kind. On September 14th the temperature rose to 101° (it had previously been nearly normal), in the evening there was considerable delirium, and during the night he vomited for the first time. Twitching of the left eyebrow and angle of the mouth was noticed the next day, when he became more delirious. On September 16th he was very noisy and delirious; the twitching was more marked; there was retention of urine; and he lay in an unconscious torpid condition. It was decided to operate at once. The skull was trephined at a spot one and a quarter inches behind the meatus and the same distance above the cerebral base line; both bone and dura mater appeared to be quite healthy, but on exploration inward and forward about half an ounce of very fœtid pus escaped; the broken-down brain substance was removed, the whole thoroughly irrigated, a drainage-tube inserted, and the wound closed.

The relief which followed this proceeding was of a transient character, the patient soon became delirious again, had one or two severe rigors, and was very low.

On September 24th further exploratory punctures into the brain substance were made, but no other abscess was found. At the same time the mastoid cells were opened, but contained no pus.

On September 26th, an inability to move the right arm and leg was noticed, but this disappeared the following day; on the 30th there was distinct optic neuritis of the left eye, but on the whole he was better. On October 2nd the track of the drainage-tube was freely dilated by means of a pair of long, thin sinus forceps. This led to the escape of about two drachms of pus.

From this date the general condition of the patient slowly improved. "Word deafness," very similar to that described in Case I., was also noticed here, but was a much less prominent and persistent symptom. On October 3rd his temperature fell to normal, and remained so; he read slowly, but distinctly, on October 5th, and by the 24th of November the optic neuritis had disappeared.

The patient has since been attending as an "out-patient" under my care, but the otorrhœa, polypoid growths, etc., though much improved, have not yet yielded to the treatment which has been so successful in Case I., but this no doubt is explained by the discovery of bare bone in the tympanic cavity.

When seen on April 10, 1890, his mental condition and general health were perfectly satisfactory in every respect, and he was able to do his work quite well. On two occasions since his discharge from the hospital he has had attacks of unconsciousness, each lasting from twenty minutes to half an hour, and the second of these attacks being preceded by some aphasia.

Dr. Eastwood asked if there was any evidence of hallucinations of hearing, which were so common when there was any disease of the brain near the auditory nerve.

OMENTUM FROM HERNIAL SAC.

Dr. A. E. Morison: This specimen was removed from a man with the following history:—S. L., æt. 43, has had a reducible inguinal hernia for two years, but has never worn a truss. On September 4th, while at work, and lifting a heavy weight, he was seized with sudden pain in the rupture, and, on trying to reduce it, failed. During the night he was constantly vomiting, and I saw him next morning. I tried taxis but failed, and then ordered ice to the part. Next day, being still irreducible, I sent him into the hospital, and operated on him. On opening the sac I found four inches of sigmoid flexure in it, together with omentum. The latter (about six inches) I removed, reduced the gut, tied the neck of the sac, and clipped the scrotal portion away. The pillars of the ring were stitched in the usual way. An hour after the operation the patient had a rigor, temperature went up to 103°, the pulse to 160, and profuse diarrhœa set in. I ordered him brandy (℥s.) and Tr. Opii (20m.) In the evening he was quite well, and I dressed the wound owing to soiling of the dressings from the diarrhœa. He was not dressed for a fortnight, when the wound was practically healed, and in six weeks he returned to work without a truss.

BRIEF NOTES OF RECENT CASES OF ABDOMINAL SURGERY.

By JAMES MURPHY, M.A., M.D., Vice-President Gynæcological Section of British Medical Association; Membre Correspondant de la Société de Médecine Pratique de Paris; and Die Deutsche Gesellschaft für Gynäkologie, &c., &c

I venture, Mr. President, to bring the following brief notes of recent cases of abdominal surgery that have occurred in my practice, chiefly in the Sunderland Infirmary, before this Society, as they may prove of some interest to our members, as they have done to me.

Case I.—*Nephro-lithotomy; recovery.*—J. C., male, æt. 39, was admitted into the Sunderland Infirmary on January 27th, 1890, under the care of my colleague, Dr. Coke Squance, to whom I am indebted for the case, and was transferred to my wards on April the 2nd for operation, with marked symptoms of renal calculus. He had suffered for several months from severe attacks of renal colic, at times of a most excruciating character, which large doses of morphia at times failed to alleviate, frequently necessitating the administration of chloroform — on one day (March 16th) it being necessary to repeat it no less than six times. He was a complete invalid, and had been unable to work for many months. Usually blood could be found in the urine, but not in large quantities; its general specific gravity was 1028, acid, and containing blood corpuscles, and, from time to time, pus corpuscles. There was considerable pain over the right kidney, which was much increased on deep pressure. On April 2nd I made a three-inch incision half-an-inch below and parallel to the last rib, teased through the peri-renal tissue, and, by pulling the ribs well up and keeping the wound open by retractors, fully exposed the right kidney. A most thorough examination of the kidney between the fingers and thumb failed to recognise anything abnormal. I then punctured it with a hare-lip pin, when I at once struck the stone. Leaving the hare-lip pin *in situ*, I cut down on the stone, feeling the knife touch it. There was a copious flow of blood, which was checked by the introduction of my finger, but no stone could I feel. I then laid the kidney freely open, and explored it with finger and probe, examining the calices and pelvis thoroughly, and passed a probe down the ureter, but no stone could be felt either there or on the surrounding tissues. Dr. Squance was, however, more fortunate, as he found it in one of the sponges. The wound was closed, a large drainage tube being left in the kidney for four days, during which time urine passed through it freely; this continued for two days after its removal. The wound then healed rapidly; there was no more renal colic. He left the Infirmary in

three weeks, and has now for some months followed the occupation of rate collector, which is fair evidence of the satisfactory results of the operation. The stone which has been shewn to-night is the size of a split pea.

Case II.—*Prolapsed and Enlarged Ovaries; Abdominal Section; recovery.*—Mrs. B., æt. 23, married four years. Child born three years ago; been a constant invalid since; intense pain at periods; vomiting, &c.; has been twice pregnant since child was born; each time labour had to be induced at fourth month owing to the incessant vomiting. The ovaries can be felt enlarged and prolapsed. She was kept under treatment for twelve months at the Infirmary as an in-patient, to see if it were possible to avoid removal of the uterine appendages, but, at last, her case became so hopeless that I felt bound to operate, which was done on April 20th, and both appendages removed. She never gave me the least anxiety afterwards; her temperature never exceeded 99 deg., and in a few weeks she left the hospital. Dr. McKay, to whose kindness I am indebted for the case, tells me all her old symptoms have disappeared; she can attend to her household duties, and that her condition is most satisfactory.

Case III.—*Mulberry Calculus in Boy, æt. seven; Supra-pubic Lithotomy; recovery.*—This case I may briefly dismiss by saying the ordinary supra-pubic lithotomy was done, May 10th, and the boy left hospital with the wound healed and quite well in three weeks. I merely include it, as stone is so rare in Sunderland. This case came from Herrington. I decided on supra-pubic lithotomy in preference to lithotrity, having accurately ascertained the size and character of the stone by the bi-manual examination with one finger in the rectum, a most reliable method in children.

Case IV.—*Suppurative Puerperal Peritonitis; drainage; recovery.* —A. C., æt. 17, was confined of an illegitimate child, in the absence of a medical attendant, on May 17th, and progressed well for ten days, when she had a rigor, and Dr. Norie (who kindly sent me the case) was called in. She was then suffering from typical puerperal peritonitis, high temperature, constant vomiting, rigors, &c. In spite of all treatment she slowly but steadily got worse. Hectic set in, fluid formed in the abdomen, and when I saw her her abdomen was as large as at term, temperature 104 degs., marked hectic, constant vomiting and diarrhœa were present, and a more unpromising case one could not well imagine; but, hopeless as it appeared, I quite agreed with Dr. Norie that we should give her the benefit of an abdominal section and drainage. She was, therefore, at once admitted into the Sunderland Infirmary, and on opening her abdomen fully a gallon of stinking pus escaped. The intestines were completely matted together, so much so that it was very difficult to say whether I was in the abdomen or in the

cavity of a suppurating cyst. I freely broke down the adhesions between the intestines, and washed the abdomen out with large quantities of warm boracic lotion, and left a large india-rubber drainage tube in, through which the abdomen was irrigated twice daily with boracic lotion. The hectic continued for some time, and her convalescence was retarded by obstinate diarrhœa, but in six weeks she left the Infirmary quite well, with the wound healed, and is now in most robust health.

Case V.—*Complete Intestinal Obstruction of Twenty-two Days' Duration, Anterior Colotomy; recovery.*—For this case, which has been exhibited here to-night, I am also indebted to the kindness of my friend Dr. Norie. Its history is briefly this: Mrs. B., æt. 35, has enjoyed good health till the past month; never passed blood per anum, nor noticed any peculiarity about her motions, but has been more or less costive for several years. She passed, twenty-two days before admission, what she considered a natural and full-sized motion, but since then has passed neither fæces nor flatus. She has almost constant vomiting, fæcal in character, has an extremely pinched and careworn appearance, enormous distension of abdomen; the shape of the intestines can be distinctly seen through the parieties. The rectum is empty and normal; but on introducing two fingers a small rounded body can be indistinctly felt. A tube can only be passed a few inches. On July 9th, the abdomen was opened in the middle line, and the hand with difficulty, owing to the distension, introduced, and a hard mass, about the size of a Tangerine orange, discovered, almost at the juncture of the colon and rectum. On more careful examination this was discovered to be a malignant growth, which, from its position and attachments, could not be removed. The colon was accordingly stitched to the wound in the manner I have described, and at once opened owing to the urgency of her symptoms, and the case progressed most favourably, and, as you have seen, she now, eighteen weeks after the operation, is perfectly comfortable, and has gained in strength and weight.

Case VI.—*Strangulated Hernia, Gangrene of Intestine, Enterectomy; death.*—Dr. Berkley Martin kindly asked me to see, on May 24th, a case of strangulated hernia that he had been called to. A. B., æt. 67, had a hernia for many years, irreducible; never wore a truss; for past week had passed neither flatus nor fæces; severe vomiting, not very much pain, and was able to be up and going about his room, a very unusual thing in patients with strangulated hernia. Still the signs were unmistakable, and I took him into the Infirmary, and at once cut down on the ring. It was the largest hernia I have seen, reaching below his knee; and when I explored the ring, I could almost have pushed my fist through it, it was so large. I then tried to return the bowel,

but found it caught in the scrotum, and on enlarging the incision downwards found about twelve inches of the small intestine quite gangrenous, and perforated in two places, having been caught by a tight band low down in the scrotum fully twelve inches below the ring. The gangrenous portion was removed and the healthy ends of the intestine united by Lembert's suture, but he never really rallied, and died next day.

Case VII.—*Ovarian Abscess, Abdominal Section; recovery.*—For this case I am indebted to Dr. Weir of Jarrow. Mrs. M. C., æt. 29, mother of one child. Has been suffering from severe pelvic pain, menorrhagia, &c., for seven months. On vaginal examination, a hard mass about the size of a small orange was found in the right broad ligament, diagnosis, pyo-salpynx. On September 29th, I removed the specimen which I have shewn, which at first appeared bedded in the broad ligament, so close were its adhesions; it was with difficulty shelled out, and proved to be an ovarian abscess; drained for four days; highest temperature, 99 deg.; returned home on the fourteenth day, and continues well; the left ovary was normal and was not removed.

Case VIII.—*Prostatectomy; death.*—Dr. Shelley kindly asked me to see an old gentleman, æt. 76, who had complete retention of urine, owing to an enlarged prostate—quite incapable of passing a single drop of urine. Catheterism produced much pain and irritation. I accordingly, on October 4th, performed the operation of prostatectomy and removed the middle lobe, which I have shewn you, quite easily with a raspatory and my finger nails. There was but slight hæmorrhage, and for four days all promised well, but on the fifth he developed pneumonia and rapidly sank.

Case IX.—*Herniotomy; Radical Cure; recovery.*—On making an evening visit to the Infirmary on November 3rd, the house surgeon informed me that Mrs. B., æt. 42, who had been kindly sent in by Dr. Norie, a few weeks before, for strangulated hernia, which was reduced under chloroform, had not been wearing her truss, and that the hernia was again strangulated. As I failed to reduce it, I put her under chloroform, tried taxis again, and then had to resort to operation, doing Ball's operation for radical cure, which I do in all my herniotomy cases now. The patient never had a rise of temperature or other bad symptom, and is now all right.

Case X.—*Cholecystotomy; Solitary Gall Stone; recovery.*—Since this paper was written, I have removed a large solitary gall stone from a patient, kindly placed under my care by Dr. Coke Squance. He had characteristic hepatic colic for several months; no jaundice; an indistinct tumour, the size of a fist, could be felt over gall bladder. Abdominal section was performed on November 25th.

Four ounces of opalescent fluid was removed by aspiration, the gall bladder opened, and a stone the size of a pigeon's egg found blocking up the cystic duct. This was with a little difficulty removed by a scoop, and bile at once commenced to flow. The gall bladder was washed out and stitched to the abdominal wound, and the patient now, December 1st, is doing excellently. No vomiting; highest temperature, 99·6; takes his food well; bile still comes freely from wound. P S.—December 8th: This man is now well.

Remarks :—The above cases are published as examples of the advantages of modern abdominal surgery. A few years ago they would not have been treated in the manner here recorded; and had there been a small piece of india-rubber available at the moment to do Senn's operation in the case of ent rect my, the result might have been different.

A CASE OF PARAMETRITIS, &c.

By Dr. BRAMWELL.

My intention in bringing the following case to your notice, is mainly to illustrate one pathological condition, which I feel sure is the main cause of the severe "vomiting of pregnancy," and also to record the complete recovery which occurs in cases of post-partem parametritis abscess, provided free vent is got for the pus.

Briefly, the account of the case is as follows :—

Mrs. T., aged 31, who had already gone through five normal pregnancies, complained to me in January, 1889, of feeling unwell, with pelvic pains, backache, and slight morning sickness.

She had missed one period in the latter part of December. On examination, the vagina was soft, the cervix hard, and the uterus enlarged and extremely tender. There was no parametric inflammation. She had been using cold zinc injections to prevent conception. In spite of careful medicinal treatment and dieting, the vomiting increased, until at the end of the third month nothing was retained for any time on the stomach. Her mouth was constantly dry, tongue red, with a dirty brown fur in the centre, breath offensive, great thirst, and the skin dry and pale; necrosmus was becoming marked, and she was getting into a dangerously low state.

The cervix still remained hard and indurated, though its surface had the smooth velvety feeling of pregnancy. The size of the uterus corresponded to that of a three months' pregnancy, and was very tender to the touch. Constant pelvic pains were complained of.

After consultation with Dr. Oliver, a further trial for a month of medicinal and dietetic treatment was decided on, and, if no improvement resulted, Dr. Oliver agreed to my proposal to dilate the cervix with a tent, as I believed the vomiting to be kept up by the reflex irritation proceeding from the gradual expansion of an indurated cervix and lower segment of the uterus. If abortion followed it did not matter, as relief had to be obtained.

No improvement occurring, on March the 18th, about the end of her fourth month, I introduced a laminaria tent, 1½ inches, and lightly plugged the vagina with iodoform wool.

Forty-eight hours after she had a rigor, and the tent had to be removed. It was still so tightly grasped by the cervix, that the end broke away several times under the traction of a vulsellum. When at last it was got out, it had the appearance represented in the drawing, the internal extremity having been so tightly constricted by the internal os as to entirely prevent its expansion, just as if a piece of string had been tied round. The internal os could

be felt with the finger as a firm fibrous ring. Incomplete abortion followed, and after the constriction of the lower segment of the uterus had been dilated by forceps and the finger, I scraped and washed out the cavity.

This completely cured the vomiting, and she improved rapidly. The evening temperature still continued to rise to 100 as you will see from the chart, and there was a good deal of coloured mucous discharge. Three hot antiseptic douches were given daily.

Seventeen days after the abortion, she commenced to have neuralgic pains down the left leg, and a few days after this I discovered a phlegmon on the left broad ligament, situated low down posteriorily. It slowly spread out towards the side of the pelvis, and pointed in the lateral wall of the vagina. I think it must have been due to suppuration of a lymphatic gland, as the swelling developed slowly and gradually, just as a lymphatic abscess forms in any other part of the body.

The temperature chart will shew you the serious condition in which the patient was at the time. I punctured the swelling in the vagina, dilated the opening, and let out about two ounces of pus, but was unable to keep a drainage tube in position. The swelling still remained as a large hard mass, filling up the left side of the pelvis, but not reaching the iliac crest.

The pain down the left sciatic nerve was very bad and had to be nightly relieved by opiates.

During the next fortnight, in consultation with Dr. Oliver, the swelling was twice punctured with an aspirator, from the vagina, but no good resulted. At last I thought I could discover a swelling in the gluteal region, over the sciatic notch, and cutting down through the glutu muscles on to the notch, came upon an extensive abscess under the gluteus medius, firmly confined by the fascia. A drainage tube was put in, and for some days a large quantity of pus came away. In ten days from this time the patient was quite herself again, and all that remained of the pelvic swelling was a band stretching from the side of the cervix to the wall of the pelvis.

The complete and satisfactory manner in which the pelvic abscess drained through the sciatic foscia, inclines me to believe that to cut down on the notch and perforate the membrane would be a feasible manner of treating abscesses of the broad ligament which extend only over the lateral pelvic wall, even though it had not already pointed in the gluteal region. The operation is not difficult, though the amount of tissue to be cut through is considerable. However, the laced muscles are precise and easily made out, and with care no large vessels need be cut. It is well known that post partem pelvic cellulitis is a very unsatisfactory condition to deal with. When the abscess points over the iliac crest or ponpaits ligament the drainage is so incomplete that the cases

tend to become chronic. When pointing in the vagina, the difficulties of keeping a drainage tube in position and carrying out antiseptics are very great, and I found in the above case that these objections did not apply to the gluteal region.

It would only be in those cases in which the pus spreads over the lateral wall of the pelvis before pointing above the vein that an opening through the sciatic notch would be advisable. König and Schlisinger, by forcing liquefied glue into the pelvic cellular tissue, have shewn that when the exudation forms in the anterior layer of the broad ligament it spreads outwards to the end of the fallopian tube, thence to the side wall of the pelvis, and finally mounts up to the iliac fossa at the posterior part, and then may pass backwards along the track of the colon, or sweep forwards to Poupart's ligament.

If exudation forms to the side of the cervix, towards the posterior part, extension takes place to the back part of the lateral wall, and then up to the iliac fossa. Both these forms might be satisfactorily treated by reaching the pus through the sciatic notch.

If the exudation forms to the side of the cervix, but in the anterior layer of the broad ligament, the extension of pus is in a direction forwards along the round ligament to the inguineal canal, while another portion extends between the layer of the broad ligament, and reaches the peritoneal covering of the lateral wall behind the round ligament. In a case of this nature the pus would have to be reached through an incision along Poupart's ligament.

It is believed the posterior border of the levator ani, when the parietal layer of the pelvic fascia spreads over the gluteal nerves, sciatic notch, and on to the anterior of the sacrum, that it is weakest, and in the recumbent position this area is the lowest of its surface.

When an abscess points through the sciatic foramen the pus makes its way through by following the sciatic nerve or pyrifomus muscle ; the vessels being enclosed in sheaths of fascia as they lie on its inner side.

With regard to the severe vomiting of pregnancy, I believe it is always due to some pathological cause.

In the very mild cases, when the vomiting occurs during the first three months, simply in the morning, it is due to reflex nervous irritation, brought about by excessive excitability of the uterine nerves in the growing and expanding organ.

The severity of this variety depends greatly upon the constitutional type of the person, being greater in nervous women than others.

When the vomiting persists throughout the day, accompanied by loss of appetite and foul tongue, it is the result of constipation, or disordered stomach produced by the nervous irritation, being

very similar to the vomiting and gastro-intestinal disorder so often seen in myoma of the uterus. I have found that careful diet, with the administration of mild mercurial and rhubarb pills, with a sedative to the stomach, invariably check this form of vomiting.

If the vomiting persists we may be sure it is due to some pathological condition in the womb; the commonest I believe to be induration of the lower segment, which has resulted from previous endo-cervicilic and endo-metritis. But it may also result from displacement of a pregnant uterus.

When vomiting occurs towards the end of pregnancy it is a very serious omen, and may be due to placentitis or blood changes, brought about by some affection of the liver or kidneys, or excessive hydræmia, and the ordinary changes accompanying pregnancy. The vomit in these cases is often of a very bilious nature, and icterus may be present. This sign should always be looked upon with apprehension, as acute yellow atrophy of the liver may commence in a very insidious manner.

I have only seen one such case; the first symptom was the recurrence of vomiting between the seventh and eighth months. The vomit was always very bilious, pure bile at times. It became quite uncontrollable, and the skin showed signs of biliary staining. The urine contained bile, and bilious diarrhœa was constant. The patient miscarried at the eighth month, and died forty-eight hours afterwards of exhaustion, though the labour was rapid and easy, and very little blood lost.

SOME ERRORS OF REFRACTION, THEIR RELATION TO HEADACHE.

By ARCHIBALD PERCIVAL, M.A., M.B., Camb.

Mr. President and Gentlemen,—Headache is a symptom common to many disorders; its frequency, the intensity of some of its forms, the difficulty so often attending its ultimate etiology, render it a subject of interest to all practitioners.

In at least one-half of the cases of headache that I have met with, I have found on careful investigation this symptom to be due to some ocular defect, and to be completely cured on its correction. Patients never suspect their eyes unless their vision is seriously impaired, and then they tend to go straight to the optician's shops. The results are disastrous. With the exception of a few cases of presbyopia, I have never found ametropes properly treated by an optician; nor is it to be expected that he should be more competent to select appropriate glasses than a manufacturing chemist to fitly prescribe the drugs he sells.

Let me quote a case in illustration which was brought to me three months ago. T. S., aged 13, was regarded as a dull boy at school; suffered from frontal headache, and pain over right temple when using his eyes. He was taken to one of the opticians in the town, who supplied him with a pair of weak convex spectacles + 1 D. This is the optician's panacea for children; a strength, I might almost say, never needed for young people. As his symptoms still continued, he was brought to me, a weary-looking lad, with a marked want of symmetry of the face. His visual acuity was much impaired, R. V. $\frac{6}{24_1}$, L. V. $\frac{6}{18}$. By retinoscopy I found he had mixed astigmatism in his R. eye, and compound hypermetropic astigmatism in his L. eye. With the proper correction he read $\frac{6}{9}$ with each eye easily, and $\frac{6}{6}$ when both were used—

R. V. − 2 D sph. ⌔ + 4·5 D cyl. ax. ⁄ 170° $\frac{6}{9}$)
L. V. + 1 D sph. ⌔ + 2 D cyl. ax. / 80° $\frac{6}{9}$ ∫ $\frac{6}{6}$
Accom. 12 D.

Since wearing these glasses he has had no headache or trouble with his eyes in any way.

I am afraid the treatment of headache is too often empirical, its cause not being investigated. Perhaps this explains, in part, the formidable list of vaunted specifics for cephalalgia.

Last June, J. B., a child aged 10, was brought to me from the neighbourhood of Darlington. She suffered from intense frontal headache whenever she endeavoured to do her lessons. She was first treated with Gregory's powders; that failing she was taken to a doctor who prescribed for her convex glasses + 1·25 D. These

seemed to afford slight but very imperfect relief. After reading for twenty minutes or so the old feeling of tension over the eyes returned and steadily increased until the headache became intolerable. She was now taken to another doctor, who, no doubt assuming that the ocular defects had been corrected, attributed these symptoms to some functional cerebral disorder, according to her mother's statement, a disability of the brain for work. Antipyrin was prescribed in four-grain doses, rest in the recumbent position being enjoined for half-an-hour after taking each dose. The headache was, of course, relieved by the rest. All the credit was ascribed to the antipyrin. Gradually the doses were increased, and when I saw her she was taking about 24 grains of antipyrin a day. She was an intelligent child, looking rather ill and pale, with an expression of constant pain. I found she had an intermittent, feeble, and irregular pulse; no cardiac lesion, the eyes are small, the lids shew signs of blepharitis and palpebral conjunctivitis. By retinoscopy hypermetropia and astigmatism are discovered, and correct glasses bring her visual acuity up to normal.

R. V. + 4 D ⌒ + ·75 D cyl. ax. | 90° $\frac{6}{6}$ Accom. 7 D.
L. V. + 4 D sph. ⌒ + 1 D cyl. ax. | 90° $\frac{6}{6}$

Examination shews slight congestion of the disc, such as is often found in cases ef hypermetropia.

The glasses were ordered to be worn constantly; a boric acid lotion was given and the antipyrin stopped. I saw her again last September, there had been no return of the headache, she was using her eyes for four hours at a time without any ill effect. Eyelids are now perfectly well; optic disc normal, its edges being sharply defined; pulse regular, and her general condition much improved. The increase in her muscular vigour was sufficiently demonstrated on again testing the amplitude of her accommodation—it was found to be 12 D, only 2 D less than it should have been at her age.

Headaches of ocular origin, excluding those due to glaucoma, tumours, and inflammatory conditions, such as iritis neuritis, &c., arise from muscular strain, either of the extrinsic muscles of the eye when there is a want of balance between the opposing recti or of the intrinsic ciliary muscle of accommodation. The first variety, usually termed muscular asthenopia, is very frequently associated with giddiness, but it is with the second class with cases of accommodative asthenopia that I propose to deal in the present paper.

Headaches arising from this cause are usually induced by occupations which entail close attention and near vision, and they generally continue for a varying time after the cessation of the occupation. They may be diffused, or occupy certain areas. Perhaps the most frequent site and form of headache is a sensation

of tension over the brows, which gradually increases to one of pain, which may then extend to one or both parietal regions. Another common site appears to be over one temple. In these cases an inequality in the refraction of the two eyes is generally found, and it is almost always associated with astigmatism. Vertical and occipital headache are not infrequently found to depend on this cause, and to be relieved by glasses, but in my experience muscular asthenopia appears to take a greater part in the causation of these forms. I have met with three cases of migraine and one of supraorbital neuralgia, which yielded at once on the proper correction of the errors of refraction of the eyes.

It is difficult in many cases to understand why certain areas should be affected. They do not usually correspond with the distribution of any special cutaneous nerve. The ciliary muscle transmits its sensory impulses by the nasal branch of the ophthalmic either directly or indirectly through the lenticular ganglion. The motor nerve, a branch from the third, and a filament from the cavernous plexus of the sympathetic, reach the ciliary body by means of the same ganglion. When the ciliary muscle is maintained in a state of excessive contraction it is quite possible that the ciliary nerves may be subjected to undue pressure, and that the sensation may be referred to other areas supplied by the fifth nerve. This perhaps may be the explanation of supraorbital neuralgia arising in some of these cases. Possibly the recurrent branches to the dura mater may have something to do with the localisation of the pain. Filaments from the ophthalmic ramify between the layers of the tentorium, while other sensory twigs from the Gasserian ganglion are found in the middle fossa of the skull, being distributed to the dura mater in that region and the tentorium. In some cases the headache may be caused by over-action of the motor centres. A centre for the ciliary muscle is known in the posterior part of the floor of the third ventricle, just in front of that for the sphincter iridis, and most probably there is a higher centre in the cortex which regulates its action. The limits of this cortical centre have not yet been defined, but fatigue due to the excessive action of this centre might induce headache.

I would wish to emphasise the clinical fact that the worst ocular headaches arise in cases in which the visual acuity is fairly good, and consequently the eyes are used for long periods. If vision is very defective, the patient gives up the attempt, and secures for himself an immunity against the pain the ineffectual strain would cause. Patients can sometimes be hardly persuaded that it is their eyes which are at fault until they find on use of properly prescribed spectacles all their symptoms disappear.

Let me briefly sketch some of the common forms of errors of refraction, with the symptoms which they occasion.

Hypermetropia is that refractive condition of the eye in which,

unless accommodation be exerted, only converging rays come to a focus on the retina. Objects, even at infinite distance, can only be distinctly seen by exerting the ciliary muscle.

The typical structure of the hypermetropic eye is one of imperfect development. It is small in all dimensions, especially along its visual axis. The sclerotic surrounding the cornea is flat, or only slightly curved; at the equator the curve is greater meridianally than equatorially. This can be usually seen when the eye is strongly turned to one side. The fovea centralis is situated considerably to the outer side of the optic axis. Consequently the fixation line forms an angle with the optic axis, commonly designated as the *angle* γ. Hence an apparent divergent strabismus is very frequently seen in hypermetropic cases. The eyes are mobile, and seem intelligent and observant. Stilling asserts, somewhat too unreservedly, that hypermetropia is associated with high narrow bone formation. The orbits are said to be shallow. I have certainly noticed that the face and nose are very often flat.

The symptoms due to simple hypermetropia depend on the relation which exists between the power of accommodation and the total error of refraction. It is well known that the range of accommodation steadily diminishes with advancing age, but I think it is hardly sufficiently recognised how much the state of the general health influences this power. Loss of general muscular tone and vigour is attended by feebleness also in the ciliary muscle. In the second case I quoted, of the child aged 10, her accomodative power should have been equivalent to a convex lens of 14 D, but it was found in her enfeebled state to be only 7 D. Only two-thirds of the total power of accommodation can be continuously exerted without fatigue in even vigorous individuals. She would, therefore, be scarcely able to accommodate for even distant objects continuously without troubles ensuing, while near vision must inevitably induce symptoms due to fatigue.

Muscular fatigue may be produced in two ways, either by the actual energy produced by the muscle in a momentary contraction, or by the extension of an elastic muscle which maintains a state of contraction for a considerable period. Occular fatigue belongs, of course, to the latter category—during contraction the extensibility of the muscle increases, a further contraction is required to overcome this extension, the muscle stretches still more, and so a steadily-increasing contraction is called for. It is not surprising, therefore, that serious symptoms should develop in cases of hypermetropia.

In some cases, especially in neurotics, the endurance of the ciliary muscle is less, sometimes much less than normal. In such, instead of $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, or even more of the total accommodative power must be kept in abeyance, or symptoms of fatigue will shew themselves.

Not every case of hypermetropia requires correcting spectacles. The necessity for them only arises when the accommodative power is inadequate to meet the demands made on it. The static refraction of the eye should be accurately ascertained, the range of accommodation and the power of endurance possessed by the ciliary muscle should be determined in every case of asthenopia. Without a knowledge of all these points spectacles cannot be properly prescribed. The discovery of the mere fact of hypermetropia is only the first step towards a complete diagnosis. If the accommodation is only equivalent to 3 D, hypermetropia of 1 D leads to as serious symptoms as an error 4 D in a young hypermetrople of 22, whose accommodation amplitude is 9 D. Many patients are ordered glasses unnecessarily, and still more are not provided with them because the relation between their accommodation and their refractive error has not been worked out. When but a low degree of hypermetropia is found, too often the faulty ciliary muscle is overlooked, and complete rest for the eyes is ordered.

This is wholly wrong in principle—exercise, not rest, should be prescribed for all weak muscles. The successful treatment of flat foot and lateral curvature consists in a systematic exercise of the feeble muscles. The dosage of this exercise, if I may use the phrase, must, however, be carefully regulated, and here considerable judgment is required. In neurotic cases with extreme asthenopia, due to errors of refraction which have long been uncorrected, even when appropriate glasses have been ordered, it is often some time before a complete cure is effected. Let us suppose a patient who can only read with his spectacles for ten minutes at a time. He should be ordered to read in a good light three times a day, daily adding one minute to the period. At no time must the reading be continued longer than is prescribed. By gradually exercising the ciliary muscle in this way, the asthenopia will yield, and often other neurotic symptoms disappear, the disposition of the patient changing for the better in a manner which seems little short of miraculous.

The characteristic symptoms of accommodative asthenopia, due to hypermetropia, develop themselves when the occupation involves close attention in insufficiently lighted rooms. Vision is at first good; after a time objects may become indistinct, and a sensation of tension is felt over the brows. The patient closes his eyes, and rubs his hand over his forehead and eyelids. This action is exceedingly characteristic. After a few moments' rest he again sees distinctly, but the same phenomena recur at a shorter interval than before. A longer rest ensures a longer continuance of work. After the rest of Sunday we find needlewomen are less liable to headache on Monday. When, in spite of these inconveniences, the occupation is continued, the tension and pain increases in intensity until the headache produced necessitates a rest. Ophthalmoscopic

examination shews congestion of the optic disc, slight blurring of its edges and full retinal veins. Should there be muscular asthenopia in addition, symptoms of giddiness, not unfrequently culminating in actual vomiting, ensue. The diagnosis of cerebral tumour has been often made in cases of this kind. There is intense headache, vertigo, vomiting, and what is presumed to be optic neuritis. The intelligence also appears impaired, either from the persistence of these symptoms or from the drugs used for their relief. A thorough examination of the eyes reveals the true nature of the case, and on the correction of the muscular and accommodative defects by the use of prismo spheres all these symptoms disappear.

In cases of high hypermetropia general symptoms are less likely to occur, the visual defect being often the only complaint, and it is noticeable that such patients usually hold objects very close to their eyes, as the gain in the illumination and size of the retinal images more than compensates for the indistinctness caused by the larger diffusion circles. Frequently patients belonging to this class are supposed to be myopic, and I have even found that they have been given concave spectacles.

Astigmatism.—Regular astigmatism is that condition in which the rays of light do not converge to a point, but to two focal lines, which are at right angles to each other, but are not situated in the same plane. It is almost always of corneal origin, the usual form being that in which the curvature is greater from above downwards than from side to side. In such cases horizontal lines cannot be seen at the same instant as vertical ones, and the ciliary muscle is constantly stimulated to oscillate between those two degrees of contraction which afford distinct vision, now of horizontal now of vertical lines. The intense headache which arises from even small defects of this nature may be easily realised. There are certain letters which are much more difficult for an astigmatic eye to see than others. Some errors are quite characteristic of the defect. The letter O is a good test letter—if the eye is adapted for horizontal lines, the O resembles a Z; if for vertical lines it is mistaken for the letter H. The first case will require a cylindrical glass with its axis vertical; in the second the axis of the correcting cylinder must be horizontal.

Often astigmatic patients will screw up their eyes, making the palpebral opening a mere horizontal slit, and in this way they eliminate the refractive error due to the vertical meridian. The diagnosis might appear easy, but it is by no means always so. Often compensation is effected by an irregular contraction of the ciliary muscle, producing an astigmatism of the lens which tends to correct that of the cornea, indeed sometimes over-corrects it. In such cases, perhaps, no astigmatism is found on a cursory examination, the visual acuity is good, and the headache (which is due to the long-continued spasm of the ciliary muscle) is treated

by the last new drug. Complete paralysis of the accommodation must be produced in these cases, and the refraction of the eye carefully worked out by retinoscopy, the only certain method. Subjective methods of testing the sight are worse than useless in such cases. Very often atropine must be used for a considerable period to obviate the tendency to irregular spasm of the ciliary muscle. If it is allowed to recur, headache will assuredly follow.

As in the case of hypermetropia, when the error of astigmatism is great, as a rule defective vision will be the complaint, not headache.

At the beginning of this year, a patient came to me with the most extreme form of simple astigmatism I have ever seen. He was wearing + 1 D spherical lenses with which one of the opticians in this town had provided him, assuring him that they would strengthen his sight. He had never suffered from headache, but simply could not see. His visual acuity was about $\frac{6}{36}$. I found by retinoscpy he had simple myopic astigmatism, requiring a cylinder of − 6·5 D in one eye, and of − 7 D in the other. With this correction he read $\frac{6}{9}$.

When the astigmatism is oblique, headache is more certain to be caused than when it is vertical or horizontal. Frequently, too, patients with this defect have some difficulty in using their glasses at first, owing to the distortion to which they have been so long accustomed being at length corrected.

Anisometropia.—When there is a difference in the refraction of the two eyes, pain is generally caused on the side corresponding to the defective eye if its visual acuity is sufficiently good. If it is amblyopic, special symptoms are not produced.

Myopia.—Myopes rarely suffer from ocular headache. They complain of their defective vision of distant objects, frequently of pain in and at the back of the eye, but not usually of headache, unless they are also astigmatic.

Should they suffer from muscular asthenopia (a defective power of convergence) the symptoms are rather those of vertigo, diplopia, etc., or of headache associated with giddiness. But these symptoms do not arise from the error of refraction directly, and hence hardly come under the scope of this paper.

In conclusion, let me urge the importance of a thorough examination of the eyes in all cases of headache in which the causation of this symptom is not at once obvious. I would direct attention to the following two points particularly :—

(1.) Where errors of refraction, other than myopia exist, pain is usually not felt in the eye, but in the brow, head, or temple.

(2.) Headache occurs chiefly in cases in which there is only a slight disproportion between the accommodative power and the refractive error. Vision in such cases is often declared to be excellent. When the disproportion is great there is generally no headache, but simply defective vision.

NORTHUMBERLAND AND DURHAM
MEDICAL SOCIETY.

SESSION 1890-91.

DECEMBER MEETING.

The Third Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, 11th December, 1890—Dr. Drummond (President) in the chair. About eighty members were present.

NEW MEMBERS ELECTED.

George Metcalfe, M.B., B.S., 119, Westmoreland Road, Newcastle.
W. G. Richardson, M.B., F.R.C.S., Newcastle.
J. V. W. Rutherford, M.B., C.M., Eldon Square.
Donald Wingate, B.M., C.M., Haswell, Co. Durham.
Chas. Clark Burman, L.R.C.P. and S., Alnwick.

NEW MEMBERS PROPOSED.

Geo. W. Ellis, L.R.C.P. and S., Bishop Auckland.
James Norie, L.R.C.P., &c., Sunderland.
— Reichhardt, Sunderland.
P. R. W. Santi, F.R.C.S., College of Medicine, Newcastle.

Mr. Williamson intimated that Dr. Robertson, who was to have taken part in the proceedings, had met with a severe injury to his eyes. It was resolved that the Secretary convey to Dr. Robertson an expression of sympathy from the Society.

ON THE TUBERCLE BACILLUS IN SPUTUM.

Dr. Coley: The following remarks are based upon examination of the sputum in more than a hundred cases of phthisis and suspected phthisis.

The first point to be observed is, that the presence of the tubercle bacillus in the sputum may be taken as an absolute proof of the tubercular nature of the disease. Although I have found the bacillus while physical signs were so undeveloped as, by themselves, to give no clear evidence of phthisis, in all instances where this has occurred the subsequent progress of the case has demon-

strated the correctness of the diagnosis which the microscope suggested.

On the other hand, the failure to detect the bacillus in the sputum must be held to be a result of absolutely negative value: it by no means helps us in any way to disprove the existence of phthisis. For many reasons we may fail to discover the tubercle bacillus in well-marked cases of phthisis at any stage of the disease.

Again, the number of bacilli, when found, cannot be taken to afford any material assistance in forming a prognosis of the case.

Curiously enough, the bacilli are commonly most numerous in the sputum in the earliest stages of phthisis. In cases of long established cavity they are often much fewer, and may even be absent.

This being said, I need scarcely add that I have no idea that the microscope can supersede auscultation in the diagnosis of consumption; and certainly the search for the tubercle bacillus is no royal road to a diagnosis. A good deal of care, and some special experience, and the expenditure of no little time, are all required to secure reliable observations. This very minute organism may be very easily overlooked when present. But some things which I have heard would seem to suggest that it is not quite impossible for it to be found (by some observers) when it is not there! The great value of the discovery of the bacillus, as an aid to diagnosis, lies in the fact that it is often possible to arrive, by this method, at a perfectly trustworthy diagnosis of phthisis at a time when general symptoms and physical signs in the chest are not sufficiently developed to warrant a decided expression of opinion. I believe that those who are most careful and thorough in auscultation, and most experienced, will be the readiest to admit that cases do occur in which they would gladly welcome any reliable supplement to the older methods of diagnosis. Especially in recommending a patient to go abroad with a view to climatic treatment, the physician is glad of some positive indication available at the very earliest stage of the disease. The discovery of the tubercle bacillus in the sputum will often enable us to decide very promptly upon this grave step, with a confidence in its necessity which we might otherwise be unable to attain.

In order to make a satisfactory examination of the sputum, it is necessary to be careful that the specimen submitted to us is not mere saliva or secretion hawked out of the pharynx. The sputum coughed up in the morning, directly after waking, is perhaps the most desirable. Of this, the thickest and most tenacious part should be taken, and a small quantity placed on a very thin cover glass. Another cover glass is then laid over it, and the two glasses are squeezed together, so that, on separating them, a thin film of sputum is left on each. They are then dried over a small spirit

lamp flame, care being taken to avoid overheating. For a stain I have always used, hitherto, Dr. Heneage Gibb's quick double stain. This requires to be used warm. The film of sputum must be exposed to it for five or ten minutes. After that it is washed in methylated spirit, to remove the superfluous stain. Then it is dried and mounted in Canada balsam. Stained in this way, the tubercle bacilli are coloured pink; all other organisms, and the epithelial pus-cells, &c., are stained mauve. The searching for the bacilli is a matter of very variable difficulty. In an easy specimen, where they are very numerous, they may be seen distinctly enough for diagnostic purposes, with a good quarter-inch power, and a good illumination, for which purpose an Abbe's condenser is desirable. But where the bacilli are few and far between, a one-eighth power is necessary to identify them with certainty; and sometimes a higher power still may be desirable.

DEMONSTRATION OF TUBERCLE BACILLI.

Dr. George Murray: Mr. President and Gentlemen,—The preparation of sputum under the microscope is stained by Riehl's method, so that the tubercle bacilli are stained *red*, the sputum and other micro-organisms *blue*. It is placed under a Zeiss $\frac{1}{12}$ oil immersion lens, ocular No. 2, and lighted by an Abbe's condenser; the magnification thus obtained being 505 diameters. The specimen was prepared as follows:—A thin layer of the purulent part of the sputum was spread on the cover-slip and allowed to dry. The cover-slip was then taken up with a pair of fine forceps with the sputum uppermost, a few drops of Riehl's solution were run on to it from a pipette, the cover-slip was held over the flame of a spirit lamp till the steam just began to rise off the surface of the staining solution, then it was allowed to cool for a few seconds. This was repeated three times, after which the staining fluid was poured off and the cover-slip washed in water. Formula for Riehl's solution: Fuchsin, 1 grm.; carbolic acid crystals, 5 grms.; alcohol, 10 grms.; distilled water, 100 grms. The cover-slip was next placed in a decolorising solution consisting of 95 parts of alcohol and 5 parts of nitric acid, till the red coloration had almost disappeared. It was then again washed in water, and counterstained for half-a-minute with methyl blue. A saturated alcoholic solution of methyl blue may be kept as a stock stain, but for use it is best to dilute some of it with water each time it is required. Finally the blue stain was poured off, and the specimen was red in water. It should be examined under the microscope at once in water, so as to see if it is a good preparation. If it is to be kept as a permanent specimen, it must be thoroughly dried and mounted in Canada balsam. The bacilli can be seen with $\frac{1}{8}$in. or $\frac{1}{6}$in. lens; but I find it much easier to find them, when scarce, with a $\frac{1}{12}$ oil immersion lens and an Abbe's condenser.

The great use of this procedure is, that when the bacilli are found it is undeniable evidence that the patient is suffering from phthisis, though, of course, if they are not found, it by no means proves the contrary. The specimen under the microscope was a useful aid to diagnosis. It came from a patient I saw with Dr. Thomson, of Felling. She had laryngitis, and was feverish. We thought the disease was probably tubercular. Examination of the chest, however, only revealed a small patch of dulness, with tubular breathing, just above the left breast, and a small area of impaired resonance below the right clavicle, but no râles were heard. In order to clear up the case satisfactorily, I examined the sputum, with the result you see; so that I was able to say with absolute certainty that the patient was suffering from phthisis. I consider that an examination of the sputum for tubercle bacilli should be made in every case of suspected phthisis. In fact, this procedure should be as much a part of routine practice as the examination of the urine for albumen or sugar; for Professor Koch himself recently said, "Any doctor who may neglect to diagnose phthisis in the earliest possible stage with all the means at his command, and especially by examining the suspicious sputum for tubercle bacilli, is guilty of most serious neglect of his patient."

Mr. Page exhibited Inguinal Colotomy Cases.

Mr. Morgan asked Dr. Page the nature of the obstruction in the case of the younger man, who appears to be scarcely old enough for cancerous disease; and in both cases why colotomy had been chosen rather than the alternative of excision of the rectum.

LUPUS ERYTHEMATOSUS.

Dr. Vickerman H. Rutherford said: Mrs. N., aged 40, presents a superficial symmetrical extension, "butterfly lupus," in the epigastrium. The margins of the expanded wings are raised, red, and evidently extending, whereas the central areas are depressed, pale, and scarred. Comedones are scattered along the margins. Two other patches, about the size of a shilling each, are situated, the one in the left lumbar region, the other over the left shoulder blade. The disease is of fifteen years' standing. Treatment with Koch's lymph was suggested, with a view (1) to discover if the disease was due to the bacillus tuberculosis, and (2) to remedial measures short of removal with the knife.

INOCULATION OF TUBERCULAR DISEASE, BY KOCH'S LYMPH.

Dr. Oliver: I am bringing before you to-night three cases of tubercular disease, not with the object of inoculating all of them, but with the view of expressing an opinion as to why one case is selected and not another. This girl, æt. 14, is the patient who

was accepted at the Conference of Physicians and Surgeons, held here last, as one likely to be benefited by the Koch treatment. The history is briefly this: Her mother died of pulmonary phthisis at the age of 45, and her sister at the age of 22. For the last twelve months she has been suffering from cough, pain in her left chest, night sweats, but not lately. She has never had hæmoptysis. There is dulness over the left apex, "crack-pot" sound, prolonged expiration, and clicking rales. Posteriorly, signs of excavation are detected at the left apex.

This second case, previously under the care of Dr. Robertson, I bring before you as a type of laryngeal phthisis. The man is 29 years of age, by trade a compositor, and he has been suffering from huskiness of voice for the last three years. There is no family history of phthisis, but one of his own children has been suffering from disease of the knee-joint. He never had any illness until three years ago, when he caught cold coming to Newcastle from Whitley by the workmen's train very early in the morning. He first had hoarseness of the voice, followed by dyspnœa and cough, with occasional night sweats, but he has never had hæmoptysis or diarrhœa. At the present time, on laryngoscopic examination, it is noticed that his arytænoid cartilages are enlarged and infiltrated; in the interarytænoid region small warty growths are noticed. False vocal cords are swollen, and have ragged surfaces. The vocal bands are injected and swollen, and are unduly approximated so as to narrow very considerably the chink of the larynx. There is ulceration of the left processus vocalis. On examination of his chest it is noticed that there is dulness under the right clavicle and prolonged expiration. There is dulness over both apices posteriorly, with prolonged expiration; urine is healthy. The patient is much emaciated.

The third case is that of J. S., æt. 17, an engine fitter, previously under the care of Dr. Coley, who was admitted, complaining of pains in the chest, cough, and expectoration of nearly six months' duration.

Family History.—Father and mother healthy. Patient is the fourth child in the family of ten children. Lost one brother, in infancy, from bronchitis. Four brothers and three sisters are living and well. Has not lost either uncles or aunts from lung disease.

Personal History.—Patient suffered from what was regarded as "glands of the bowels" when young. Since then has had good health, until June of this year, when, after having been in camp as a volunteer, at Newbiggin, he began to suffer from cough. This was followed later on by pain and expectoration. He attributed his illness at first to the influence of wet and cold. None of his comrades who occupied the same tent suffered from cough. After leaving camp, he returned to work, and followed his occupation for

three months, coughing frequently and getting weaker. Consulted Dr. Coley, at the Chest Hospital, who found the tubercle bacillus at second visit, in the expectoration. Cough has lately increased in frequency, and the expectoration in quantity; voice has become slightly husky, and he has emaciated. Has only once had hæmoptysis, *i.e.*, two months ago. Has had no diarrhœa or œdema of feet. Night sweats occasionally, but none for three weeks. Appetite good.

Morning temperature 102·1° Fahr.; pulse, 124; respiration, 22. Evening temperature, 100; pulse, 100; tongue, clean; pupils dilated. Is complaining of sense of heat, and itching in the skin. Has urticaria.

Chest Anteriorly.—Present condition. There is distinct flattening from backward over right apex. There is distinct dulness extending from clavicle down to upper border of third rib. Over this area the breath sounds are particularly harsh and dry, with distinctly prolonged expiration. Below third rib, inspiration is extremely interrupted, almost cog-wheel in character, but perfectly dry; while, as you descend to base, the wavy or interrupted inspiration diminishes, and a small dry clicking is heard towards the end of inspiration. Beyond distinct coarseness and dryness of respiratory murmur over left apex, nothing is noticed. At base of left lung, small crepitations can be heard.

Chest Posteriorly.—There is distinct dulness over both apices, particularly right, which extends down to third rib; over right apex, expiration markedly prolonged, but there is nothing noticed beyond distinct dryness of respiratory murmur and harshness approaching tubularity. There is distinct increase of vocal resonance, and whispering pectoriliqy is present. At extreme base of right lung, a high pitched, but very small, musical râle is heard during inspiration. Over left apex, beyond occasional dry creaking, nothing is heard. Voice sounds slightly more marked than in health. *Sputum*, on microscopical examination by Dr. Coley, contains numerous tubercle bacilli. *Heart*, *liver*, *spleen*, are normal; *kidneys:* urine, sp. gr. 10·14 acid. No albumen. Weight, 7st. 3¼lbs., with trousers on only. Weight, on 6th December, was 7st. 10lbs., and in June, of this year, 8st. 4lbs.

I shall ask Dr. Rutherford to inoculate the third case, and my reason for taking this lad, instead of one of the other cases, is simply this: That, as compared with the girl, who is suffering from pulmonary phthisis, in him the disease is much less advanced, and that, although numerous tubercle bacilli have been found in the sputa, the case is one of only a few months' duration. The state of his lungs, too, is such that he has not passed beyond the first stage of consumption. Besides, it is a case of *acquired*, and not *hereditary phthisis*. My reason for not inoculating the second case is this: That as one of the consequences of the inoculation of

the lymph is not only a searching-out of the tubercular tissue, but the production of a good deal of congestion and œdema in the neighbourhood of it, I am afraid that with the hypertrophied condition of his vocal cords we might have such an amount of congestion and œdema of the larynx produced as to oblige us to perform tracheotomy. This danger has already been realised in other cases on the Continent, and therefore I think that, at the commencement of this particular line of treatment, we should be extremely careful not to institute complications.

Should Koch's discovery be supported by experience, and all realised that is claimed for it, then I think a very great responsibility is placed upon the profession. The lymph is said to pick out tubercular tissue, and thus it is used for diagnostic purposes. Absence of reaction after inoculation is proof that there is no tubercular tissue present. Can we go the length then of saying that in cases where inoculation has not been followed by reaction that probably some protective influence will be left behind, so that future invasion of the tissues by the tubercle bacillus will become impossible. If this can be shewn to occur, then inoculation as a protective against tubercle will become an operation as frequently performed upon the child as vaccination is at the present time. Additional responsibility rests, too, upon this fact. It is said that it is only in the earliest stages of tubercular disease of the lung that inoculation by Koch's lymph can bring about a cure. If experience supports this statement, it will become obligatory upon all of us to learn how to prepare and stain the sputa for the tubercle bacilli—for their presence in the expectoration of a patient in whose chest physical signs fail to reveal even the first stage of phthisis is a clear indication that the disease has already established itself there.

Dr. Coley said: The case, now under Dr. Oliver's care, which has just been injected with Koch's fluid, is one which I selected, at Dr. Oliver's request, from patients now under my care at the Hospital for Diseases of the Chest. It appeared to me suitable as a test case, because the disease is recent, and there is as yet no proof of any breaking down of lung tissue. Besides the evidence from auscultation, the nature of the disease is made clear by the presence of tubercle bacilli in the sputum. Some members of this meeting have had the opportunity of examining the specimen in the adjoining room. I entirely agree with the wisdom of Dr. Oliver's determination to use in this case, at first, a minimum dose of Koch's fluid. There is reason to believe that the amount of tubercle is large, and therefore a somewhat severe reaction might be expected, if anything like a full dose were used.

Dr. Newcombe: Sir,—Is it known what is the result of the reaction, after the injection of this fluid, in a case of tubercular

meningitis or peritonitis, where it is impossible for the diseased tissue to be expelled? I ask this because I have been told that there have been some deaths in Berlin after injection—coma supervening. Tubercular menigitis is not always suspected in its first stages, and may be concomitant with evident tuberculosis in other organs. I think before using this remedy we should be enlightened on this point.

SPECIMENS.

Mr. Lyon Smith shewed the spinal column from a case in which he had trephined for paraplegia occurring in angular curvature.

The patient was a young man, aged 22, who had suffered from pleuro-pneumonia twice in boyhood, and who developed disease of the spine when about 21 years of age. When seen in March, 1890, he was suffering from complete loss of motion and sensation in both legs, and both bladder and rectum were affected. For two or three months catheterism had been required twice a-day. There were large bedsores. There was a prominent angular curvature in the lower dorsal and lumbar region, having its apex formed by the twelfth dorsal spinous process.

The posterior arches were removed for about two inches, and the cord, covered by its sheath, rose in the narrow furrow. But there still seemed to be pressure within the tense sheath, and this was therefore laid open longitudinally, when the cord bulged upwards and began pulsating freely. The wound was closed and a stiff jacket of poroplastic adjusted. On the evening of the operation the bladder was emptied completely, but unconsciously and involuntarily, and the catheter was not required again. During the following fortnight other slight symptoms of improvement were greater vitality in the legs, vague sensations when touched and slight twitching movements in response to voluntary efforts on the part of the patient. The bedsores began to improve. The wound was quite healed in a fortnight the temperature after the operation never having risen above 100°. But at the end of the third week patient began to cough, his breathing beccame hurried, and his temperature rose. There were no other signs of improvement in his legs. The old empyema began to re-fill, and he sank gradually and died thirteen weeks after the operation.

At the *post-mortem* examination traces of former attacks of pleurisy were found, and the right pleura contained nearly a pint of pus. Careful dissection of the spinal column shewed a sharp bony ridge projecting into the lumen of the neural canal immediately opposite the middle of the trephined opening. This ridge was formed in the following manner:—The body of the twelfth dorsal vertebra was almost completely destroyed by caries, but small portions remained attached to the adjacent bodies. Owing to the bending of the spinal column forwards the lower posterior

edge of the upper fragment projected into the neural canal, and across this roughly-sharp edge the spinal cord had been stretched, chafed, and compressed.

The spinal cord was found quite diffluent and structureless. It seemed reasonable to conjecture, from the *post mortem* examination, that the operation might have succeeded if it had been done earlier in the case, before myelitis had been produced.

CAST OF STUMP.

Dr. HEATH said: This, Sir, is the cast of the stump, left after an amputation through the knee-joint, in a case of infantile paralysis. There are two things I wish more particularly to point out in the cast, one is the position of the knee-cap in its right place upon the front of the condyles; the other, the small size and posterior position, well away from the pressure, of the scar left by the operation.

The operation consisted in taking a large night-cap skin flap from the front of the joint, by means of a nearly transverse incision across the front of the leg on a level with the lower end of the tuberosity of tibia, the knee being bent at right angles, and a smaller posterior oval skin flap dissected from the popliteal region and upper part of calf. Amputation through the knee-joint with a night-cap flap is one I generally find succeed, and have often performed. Two objections are made, however, to it, and especially to leaving the knee-cap—one is that the knee-cap is apt to be drawn up on the front of the thigh; the other, that the posterior flap, even when apparently redundant, is apt to be unduly retracted, thus the utility of the knee-cap as a bearing point is lost, and the healing may be interfered with or tension produced. To avert these disasters, I determined in this case upon a procedure which I have not seen described anywhere, and which, so far as I know, has not been previously practised. The ligamentum patella was left somewhat long, and stitched with three strong catgut stitches to the posterior flap. In this way I thought these opposing forces would be neutralized and made to counteract each other. The subject of the operation—a young woman of about 23 years of age—had been a cripple from the age of three years. The leg was completely paralysed and withered; the muscles atrophied. The foot was the seat of constantly recurring painful ulceration.

The muscles of the thigh retained a certain amount of power, the glutæus, psoas, and iliacus still more. Out of doors she went on crutches; in doors and sitting she carried her leg in her lap like a baby; but she could bear her weight on her knee, and, with it upon a chair, could move about the house. She was exceedingly anxious to retain the knee, but had been told that, on account of the diminished vitality of the limb, healing might not readily take

place if the operation were done lower than mid-thigh. In some other respects the young woman was not a very good patient. She had a cough, and had had occasional attacks of blood spitting. Her chest was examined by Dr. Oliver, who did not find any tubercular disease. I kept her in my house until the chest symptoms disappeared, and then removed the leg at the knee-joint, leaving the knee-cap and not interfering with the condyles. The case did well, and in a week the patient was fit to be moved into the country. Subsequently she was able to wear an artificial support, consisting of a long bucket and pin. Using the leg greatly improved the power of the muscles moving the thigh, and in a very short time she was able to move about without crutches. She wrote me an amusing account of her return to Wigan, where her friends keep a store near the station. She left her crutches at my house, and took the train to Wigan. She walked from the station to the store, stepped up to the counter, and said, "Please give me half-pound of tea," and she was served with the half-pound of tea as if a stranger, her friends not recognising her without her crutches, and her pin being hidden by her clothes. I have brought these cases, Sir, before the Society partly on account of their intrinsic interest, and partly because I believe they may be considered fairly typical examples of the success of modern surgery, and not of its success merely but of the smooth celerity of that success.

MYELOID GROWTH ARISING IN CANCELLOUS STRUCTURE OF LOWER END OF THIGH-BONE.

Dr. Heath said: This, Sir, is an example of what is usually termed myeloid disease, occupying, what I might call its place of election, viz., the joint-end of the thigh-bone.

When the limb was amputated, the coarser appearances presented by the growth were very characteristic; now, when the specimen has lain for some weeks in dilute spirit, a good deal of the soft, gelatinous structure has disappeared, the cysts are less distinct, and the colour has changed to an almost uniform red.

[Sections for the microscope were made at the time of removal by my friend, Dr. George Murray, who has this evening placed them under microscopes, and will also describe the microscopic structure of the growth.]

Some of the peculiarities of this form of growth are still well shewn however, and, as they are of practical interest, I will mention them. The whole of the joint-end of the bone has been occupied by the disease, but, although the surfaces of the joint are pressed close together, so that a piece of card only can be passed between, nevertheless, the joint surface of the cartilage, although now in part stained red, remains intact.

The joint has not been penetrated by the new growth. This is, I think, interesting and important, both pathologically and surgically.

The thigh-bone has been sawn through longitudinally, and the disease can be traced a certain distance into the medullary canal, but where the disease has stopped an arched plate of bone can be seen, forming a sort of limit to the disease, separating it from the rest of the canal, and beyond this the medulla seems healthy.

The bone was sawn across immediately below the trochanters, and on examination at time of operation was found to be healthy.

For museum reasons, about two inches of the shaft have been removed, but the bone, where divided, is sound.

Before the operation, the growth, of more than two years' duration, presented the usual signs of myeloid disease—elasticity, obscure fluctuation, and egg-shell crackling.

The nature of the disease being well marked, and the bone being sound where divided, the head of the femur was not removed from the socket.

I do not propose to take up time by describing the operation. I will only mention that it was a combination of the oval and circular methods, designed to admit the easy removal of the head of the bone should this have been thought necessary, to bring the scar well to the back of the stump, and to furnish sufficient covering to the bone, without tension, and at the same time without cumbrous superfluity.

The result was in every way satisfactory.

There was absolute immunity from pain, notwithstanding the necessarily large size of the wound; there was union by the first intention, except at the drainage openings; the patient was out of her bedroom in a week; in fourteen days was taken in a carriage a journey of some twelve miles.

In this smaller glass jar is a specimen of periosteal sarcoma, which I shewed here some two years ago, and which I have now brought in order that the members of the Society might compare the two specimens, one being a central growth, the other periosteal. I may mention that the patient from whom the periosteal growth was removed remains well.

Dr. George Murray: I have placed a section of the tumour, which Dr. Heath has just handed round, under the microscope. The section is stained with logwood so that the nuclei of the cells are clearly visible. Numerous giant cells are seen in all parts of the section. Many of them contain a dozen or more nuclei which lie gouped together in the centre of the cell. Between the giant cells the substance of the tumour is composed of spindle-shaped cells. Thus the structure is that of a typical myeloid sarcoma.

TONGUE CASE.

Dr. J. Drummond: Mr. President, with your permission, I should like to bring this case before the Society, as I think it would be an appropriate addition to the interesting series of such cases we have seen lately. I may say at the outset that this is a case of syphilitic disease, although from the appearance of the tongue it might be taken for a case of undoubted cancer. Indeed, it may now have reached the stage when that is an element in its structure, and I think it is only by a course of specific treatment that its true nature can be properly diagnosed. Before putting him on treatment I thought it best that you should see him and hear his history, and I hope at some future meeting to present him to you again.

The patient is a cab driver, aged 46. He has taken large quantities of alcohol and smoked for many years. Four years ago, he came under my care with his tongue in a similar condition to what it appears to-night. After eight months' specific treatment it got quite well, and remained so for about two years. It again presented this fungating cancerous look, which all disappeared after about two months' treatment, and now he has returned for the third time. I hope the same treatment may have a like happy result, when I shall be pleased to shew him to you again.

NOTES OF THREE CASES OF ALEXANDER'S OPERATION FOR SHORTENING THE ROUND LIGAMENTS.

By J. LIMONT, M.A., B.Sc., M.B., M.R.C.P. (London); Physician to Royal Infirmary, Newcastle-on-Tyne.

Alexander's operation for shortening the round ligaments does not seem to have made that way in the confidence of the profession which it deserves. I relate the following cases with the view of illustrating the good results obtained in some cases; as will be seen, the result sometimes being the transformation of a helpless invalid into an active useful member of society.

CASE I.—PROLAPSE OF UTERUS, WITH HYPERTROPHY OF CERVIX IN NULLIPARA.

A. B., a governess, aged 25, first came under my care in 1885. She was then incapacitated from carrying out her duties by a projection from the vulva, which greatly interfered with micturition and defœcation, and caused pelvic discomfort and difficulty in walking. The cervix projected three inches beyond the vulva, and was extensively ulcerated. The sound passed $4\frac{1}{2}$ inches. Examination shewed that the uterus was prolapsed, that cystocele and rectocele were present, and that the cervix was much elongated. The body of the uterus was small, and the ovaries also seemed less than normal. Residual urine was always to be found in the bladder. As might be expected, no pessary gave any relief. I therefore asked Mr. Page to see her, and he amputated about two inches from the cervix. Afterwards a Cutter's pessary was introduced, and for a time there was no descent of the organ, and the patient was comparatively free from discomfort. Gradually, however, all the old symptoms returned, and the patient again became completely incapacitated by the marked prolapse. Mr. Page again saw her with me, and it was arranged that he should perform Alexander's operation. This was done in September, 1888.

An incision was carried outwards from the spire of the pubis for two inches. Taking the ring as a guide, the ligament was defined and run out; the fundus of the uterus was held forwards by means of fingers in the vagina. The ligaments were then pulled tight and stitched to the ring.

The patient lay in bed for five or six weeks, and wore a Thomas' pessary for some time after getting up.

In March, 1890, she writes, "I am still very thankful I had that operation performed, as all seems right so far."

A few weeks ago she called on me to report her condition.

She says that she has lost all her pelvic trouble, and for nine months has worked hard, taking charge of a house and six children.

On examination, I found the fundus uteri lying close to the pubis, and projecting a little above it. Even in straining in the erect posture, there was no tendency for the vaginal walls or uterus to descend.

CASE II.—PROLAPSE OF UTERUS, WITH RUPTURE OF PERINEUM INTO RECTUM.

C. D., aged 30, admitted to hospital February, 1890. Patient was confined, in 1888, of a male child. She states that as soon as she got out of bed her womb came down, and that she has suffered from incontinence of urine and fæces ever since. There was extreme prolapse of the uterus, a large cystocele, and a tear through the perineum and sphincter.

An operation for repair of the perineum had been performed some time previously, but had not been a success possibly due to syphilis, which she had contracted since her confinement.

Pessaries were of no avail, and Mr. Page therefore arranged to shorten the round ligaments, and afterwards repair the perineum and sphincter.

The operation was performed as in the first case. The wounds healed fairly well. The fundus kept in good position, and the patient left hospital wearing a Zwanke's pessary. Nothing was heard of her till November. The pessary was then removed, and on examination a week later there was no tendency for the uterus to descend, even in straining in the upright position. The cystocele was present, but to a very slight degree. Incontinence of urine had disappeared. The only trouble the patient now experienced was the incontinence of fæces. Mr. Page has arranged with the patient to return in order that the perineum and sphincter may be repaired.

CASE III.—RETROFLEXION WITH ADHESION AND PROLAPSED OVARY.

E. F., aged 23, first seen in February, 1890, on account of great pelvic pain.

She had suffered from severe dysmenorrhœa since she was seventeen; latterly menstruation had also been irregular and profuse.

Pelvic pain and pain in her back were so severe on the slightest exertion that she had had to give up her employment as a nurse, and was perfectly helpless. An anæsthetic was given and it was found that the uterus was sharply retroflexed and could only be lifted up a short distance on account of adhesions. One ovary lay fixed under the fundus, in the Pouch of Douglas. No distension of the latter could be made out.

Pessaries caused great suffering, and did not keep the fundus up; the patient was anxious to get back to work and looked forward to marriage at no distant date. It seemed, therefore, a case where a trial of Alexander's operation might be made before having recourse to removal of the uterine appendages which appeared to be the only other alternative.

Mr. Page operated as in the other two cases. By means of the fingers in the vagina the fundus was stretched forward as far as the adhesions permitted, and the round ligaments were then made fast to the ring.

For the first few days the patient suffered very great pain; then the pain passed off, and at the same time the bands could be made out much less distinctly than previously.

I have not had an opportunity of examining this patient since she left hospital, but she wrote in December saying that the pain was much less, and that she was acting as charge nurse to a large ward.

The first and second cases shew what may be accomplished by Alexander's operation when combined with other operative procedure (amputation of cervix, repair of perenium). Several writers have emphasised the necessity of this combination of operations in many such cases

The presence of adhesions, such as were present in the third case, are by some held to be an absolute contra indication, except when they can be broken by gentle manipulation.

This case shews, however, that there are exceptions to this rule. One must of course remember the frequency of adherent or even distended tubes in these cases. But, if such lesions are not present, the fundus may be pulled firmly forward and fixed, and we may look for considerable alleviation of the previous pain and discomfort.

CASE OF PLUMBISM, WITHOUT BLUE LINE IN GUMS.

By C. STENNETT REDMOND, L.K.Q.C.P.I.

On Friday evening, Nov. 7th ult., I was called to see E. G., aged 16 years, said to be bad with the lead.

I found the patient, a thin, pale, strumous-looking lad, suffering from epileptiform convulsions.

The history I got was that he had been working at the Newcastle Chilled Shot Company's Works, Gateshead, for fifteen months. He went to work as usual the previous morning, and when he came home to breakfast, at 8·30, complained of being sick and cramped in bowels. He ate his breakfast, however, and returned to work, but came back again at ten, feeling much worse with cramp, and vomited everything he took. Gave him Dutch drops and castor oil, both of which he vomited. Repeated doses of aperient medicine were given without effect, and the cramp got worse, and on Friday, between five and six p.m., he was seized with fits, and they came for me.

When I saw him the bowels had not been opened for some days, water had been passed, pupils were neither contracted nor dilated, he was semi-conscious, and seemed to writhe about in the bed from pain in bowels.

I ordered hot flannels and turpentine to bowels and feet and legs, cold to head, gr. x. calomel at once, mag. sulph. ℥ ii. doses every two or three hours, as soon as he was able to swallow, which he was able to do in the course of an hour. At nine p.m. the convulsions returned very severely, and I put him under A.C.E. mixt. for half-an-hour.

On Saturday morning I saw him at seven o'clock. I was informed that the fits had come on as bad as ever soon after he awoke from the chloroform sleep. He had passed water in the bed, but bowels had not acted, though he had taken an 8 oz. of this mixture in night. He was then semi-conscious, moderately convulsed, and rolling about uneasily in bed. I then gave him gr. x. calomel, m. iii., ol croton in butter, to be put on his tongue, which produced copious evacuations in a few hours. The mixture was continued, and milk was given him in small quantities frequently, as he was able to swallow when roused. Towards evening the pulse became very weak and intermittent, and he appeared to be sinking. He lingered on, however, till Sunday night, when he died at eleven p.m., without ever recovering complete consciousness. His temperature three hours before death rose to 103 degrees.

The evidence at the inquest shewed that the process of shot making was remarkably free from any risk of lead absorption, no

employee having ever been affected, and the usual precautions being adopted, after eliminating every other possible cause to account for the symptoms, I was forced to the conclusion that death was due to lead poisoning, and that deceased was constitutionally predisposed or susceptible to comparatively trivial causes, which would not have been insufficient under ordinary circumstances to affect the majority of people—a fact pointed out by Bushme, who says: "Some persons present the symptoms of plumbism who have been exposed in a very slight degree to the poison (it may be only a dose or two of lead medicinally), while others may go on with their work for twenty years or more, and yet escape."

The parents refused to permit an autopsy, but I obtained a small quantity of urine, *post-mortem*, which I tested for lead with H_2 S. and K. I., but the result was negative.

THE SPREAD OF TUBERCULOSIS AND ITS PREVENTION.

By GEORGE R. MURRAY, B.A., M.B., Camb.

Mr. President and Gentlemen: At the present time, when the subject of tuberculosis is exciting such general interest, it will be useful to consider briefly how this terrible disease is spread. The subject is one of great importance, for it has been calculated that one-third of the total number of deaths which occur annually in Europe is due to tuberculosis in one form or another. In other words, 3,000 persons each day, or more than 1,000,000 each year, are killed in Europe alone by the tubercle bacillus. Now cholera, which is considered such a scourge, is, I believe, not answerable for more than 340,000 deaths in Europe altogether. That tuberculosis is due to a bacillus was proved in 1882 by Professor Koch. For, as I said at a former meeting of this Society, the chain of evidence for the causal relationship of the bacillus to the disease is in this case complete. The bacillus is present in all cases of tuberculosis. It can be cultivated pure for a number of generations outside the body. When inoculated into a healthy animal, it reproduces the disease. In cases of the disease thus artificially produced the bacillus can always be found.

Here are some excellent photographs of the tubercle bacillus, taken by Prof. Fraenkel and Dr. Pfeiffer. The bacilli are shewn both by themselves and also *in situ*, in sections of tuberculous organs, under different degrees of magnification. Here also are several coloured pictures of the same in Prof. Crookshank's book, with which, doubtless, many of you are familiar. Under the microscope is a preparation of the expectoration of a phthisical patient, stained by Riehl's method, which shews the bacilli stained red, the rest of expectoration and all other micro-organisms stained blue. It is placed under $\frac{1}{12}$ Reiss oil immersion lens, with a No. 2 objective, so the bacilli are seen under a magnification of 505 diameters.

From these you will see that the bacilli are small slender rods, 2-4 m. in length, slightly curved, with rounded ends. They have no power of movement. As these micro-organisms are the real cause of the disease, it follows that every case of tuberculosis is due to the entrance of the bacilli from without; for there is no evidence to shew that they are capable of arising *de novo* within the body. Further, the bacilli which thus give rise to the disease in a hitherto non-tuberculous subject, come, directly or indirectly, from some pre-existing case of tuberculosis in man or in some animal; for there is, also, no proof that they can come into existence spontaneously outside the body. This being the case, how do the bacilli

gain an entrance to a healthy subject? There are three ways in which this generally takes place in man. By wounds in the skin; by the alimentary canal; and by the respiratory passages. In animals, a very acute form of tuberculosis can be induced by the direct intra-venous injection of pure cultures of the tubercle bacillus which have grown for a long time on blood-serum and glycerine. The animals die after a few days of acute illness, and though no tubercles have had time to form, great numbers of the bacilli are found in the liver, spleen, and other organs. Under the microscope, you will see some of the pulp of the spleen of an animal which died of this form of tuberculosis, this spring, in the Pasteur Institute. It is stained by Riehl's method, and shews large numbers of the bacilli.

The cases of infection through an external wound are so rare that they are quite pathological curiosities. In one case, the servant of a phthisical German professor broke her master's spittoon, and cut her finger with the fragments. The result was that the wound became infected by the sputum, and a localised tubercular affection followed. Cases have also been recorded, in which Jewish children have been infected with localised tuberculosis of the foreskin after circumcision, by the Rabbi, who was suffering from phthisis, applying his mouth to the wound in order to stop the hæmorrhage. In some cases the tuberculosis has spread to the ingunial glands, and the children have died of general tuberculosis. The infection may also be transmitted from a dead subject, through a *post-mortem* wound. The presence of tubercle bacilli has been demonstrated in the so-called *post-mortem* warts, shewing that some, at least of them, are local forms of tuberculosis. Two cases of lupus, following wound infection by tuberculosis, have recently been recorded. In one the disease was contracted in cutting up the carcass of a tuberculous ox, the other by the patient being tattooed with Indian ink, which had been moistened with the saliva of a consumptive man. The bacilli were found in both cases.

Tubercle bacilli, thanks to their resistant outer layer, are able to resist the action of the gastric juice, and, when swallowed, pass on unharmed into the intestine. Thus if a guinea pig has the sputum of a phthisical patient mixed with its food, the mesenteric glands, intestine, liver, and spleen all in turn become tubercular. The same holds good in the case of man, for a phthisical patient often infects his own intestine by swallowing his sputum.

The important question of infection of tubercle by food cannot be fully discussed here, but briefly our chief danger lies in consuming meat or milk which contains tubercle bacilli. Unboiled milk is a special source of danger to young children of weak resistence. Hirschberger found that the milk of one-half of all the tuberculous animals he examined contained the bacilli, other observers have found them less frequently. If the udder of the

cow is diseased the milk is almost certain to contain bacilli, and if taken unboiled they pass unharmed into the intestine. Butter made from such milk is also a source of danger. The flesh of tuberculous cattle may also be infective, though to the naked eye, its appearance may be healthy. This question is treated very ably by Dr. Behrend in the "Nineteenth Century," for October, 1890, and the question of infection by milk by Dr. Bang in the "Journal of Comparative Pathology," for September, 1890. I would refer anyone who is specially interested in this question to these papers.

The third mode of infection by the respiratory tract is far the most important of the three. As the bacilli generally infect the first organ they reach the great frequency of tubercular phthisis shews how often the infection takes place in this way. How then are the bacilli carried from the a pre-existing case to the lungs of a non-tubercular individual? The bacilli have no power of movement themselves, and being true parasites they do not multiply outside the body except under specially arranged artificial conditions. They are not, as was formerly thought, to be found floating about in the air everywhere nor in every dusty room. Now we know that a patient suffering from advanced phthisis is frequently expectorating great numbers of bacilli; it has been calculated by Bollinger that one patient can eject as many as 20,000,000 of them in 24 hours. Here then we have in every phthisical patient a constant source of infection. For one single bacillus has been found by experiment to be capable of infecting a guinea pig with fatal tuberculosis. Patients, unfortunately, are often very careless about their sputum, it is deposited on the floor of their rooms, or on that of waiting rooms, railway carriages, and other places of public resort with absolutely no regard to the welfare of others. What happens? The expectoration dries up, breaks into powder and becomes part of the common dust of the room. The bacilli contained in such dust can withstand the drying and retain their virulence for six months or more. The dust floats about in the air of the room and is inhaled by every who enters it. The contagium is thus carried direct to hitherto healthy lungs. If the conditions there are favourable, the bacilli thrive and render their unfortunate "host" phthisical. Another similar source of danger arises from depositing such dangerous sputum in handkerchiefs where it soon dries, becomes broken up into dust and mingles with the common dust of the room in which the patient is living.

That the above sequence of events really takes place has been proved by Dr. Cornet's experiments. He found that the dust taken from the neighbourhood of a patient with phthisis, when injected into the peritoneum of a guinea pig, nearly always caused tuberculosis, but that similar dust taken from a place where there was no phthisical person did not produce any disease. He found

that round the beds of patients who frequently used a handkerchief instead of a spittoon during the night, there were many bacilli in the dust. The dust of hospital wards and hotel rooms in which phthisical patients had lived, he also found to be infective. In another series of experiments, he found tuberculosis of the lungs can be produced in animals by making them inhale dust containing tubercle bacilli. We thus find an explanation of the frequency of phthisis in several members of the same family. A phthisical father infects his house, the children inhale the dust and become phthisical. No doubt predisposition inherited from a weakly parent makes the children a specially favourable nidus for the bacilli. But however strong the predisposition may be, if no bacillus gains an entrance to the child, it will not become tubercular. Dr. Ollivier recently reported a striking instance in a family of seven living in a house in Paris, of whom five were attacked by tuberculosis in the course of two years. It was found that the house had been occupied previously by a family with tuberculosis, and that in 1887 a child had died of that disease in the house. Ollivier considered that this case was the origin of the infection. This theory of the spread of tuberculosis by expectoration is an old one; it is only recently, however, that it has been proved by direct experiment on animals, the only way in which such theories can be proved, and so made useful and available for preventive medicine.

In considering the prevention of tuberculosis, we must have regard to the improvement of general and local conditions which predispose to it on the one hand, and on the other we must as far as possible prevent the bacilli gaining access to the body. It is not my purpose to enter into the former of these, as much is given in all text books on the climate, diet, and drugs which are of use in increasing the power of resistance of a weakly subject. We have then to consider how the entrance of the bacillus to the body may be prevented. Inoculation tubercle may be obviated by strict antiseptic treatment of all wounds which can possibly have been in contact with any tuberculous material.

The danger of infection by milk can be done away with by boiling all milk before using it; this is specially important for young children. Temperatures below boiling point are not reliable, for milk heated to 80° cent. for five minutes may still be infective.

The question as to whether it is safe or not to eat meat, healthy in appearance, which comes from an animal suffering from some local form of tuberculosis is still *sub judice*. Such meat, however, may contain bacilli, though normal in appearance to the naked eye, and, if eaten without being properly cooked throughout, is a source of danger.

In this country the meat from a beast, with, for example, pulmonary tuberculosis, if healthy in appearance, is passed as sound meat, and consequently fetches its full price in the market. This

is not right. In this matter we should do well to imitate the Germans. In Germany, none of the meat from a tuberculous animal is passed as sound meat, but is labelled in the market and sold at a lower price, so that the purchaser knows what he is buying. In this way only can we be certain that the meat we buy is really healthy.

We must now consider the most important part of the whole subject, viz., how to prevent phthisical patients from spreading the bacilli around them; for this we have seen to be the chief means by which infection is carried to the lungs. This may be done very simply. All we have to do is to take care that tuberculous expectoration is not allowed to dry and become dust. To gain this end efficiently every patient must be strictly charged never to expectorate upon the ground, or floor, or into his handkerchief. In fact, it should be a hard and fast rule for every consumptive patient never to expectorate except into a vessel containing water, the contents of which should be sterilised before they are thrown away each day. In the Moabit Hospital, in Berlin, all the spittoons are collected and sterilised by superheated steam under pressure before they are cleaned. Expectoration may also be disinfected by boiling for fifteen minutes, or by stirring it up with a 1 in 500 solution of perchloride of mercury, and allowing it to stand some time before throwing it away. Patients who can walk about should always carry a pocket spittoon, such as this one, which has been devised by Dethoeiler. In this way we can make sure that the sputum does not become dried up as dust and so dangerous. A room which has been inhabited by a phthisical patient should be disinfected, the walls re-papered, ceiling whitewashed, and the wood-work washed with a 1 in 1,000 solution of perchloride of mercury, before any other person occupies it. Thus it is as much our duty to insist on these precautions being taken with every case of phthisis as it is to attend to the disinfection of the clothes of a patient with scarlet fever, or the stools of a patient suffering from typhoid. If this is done thoroughly, I am certain that we shall soon see a still further fall in the death rate from phthisis which has taken place in late years.

Prof. Koch's great discovery has given us a method of treating tuberculosis much superior to any we yet possess. It is too soon to speak yet with confidence as to what amount of good it may do, but whatever success may attend the method it will be none the less incumbent on us to prevent the spread of tuberculosis as far as we are able, by the simple precautions which I have briefly described. Especially would I urge the necessity of examining the sputum of every suspected case of phthisis for tubercle bacilli, so that we may be certain of the nature of the case, and so be able to take these precautions and apply the treatment at the earliest possible opportunity.

ALCOHOL AMBLYOPIA.

By CHARLES L. LIGHTFOOT, M.D., Member of the Ophthalmological Society.

Mr. President and Gentlemen : The subject of alcohol amblyopia may possibly have a certain interest to you, when taken in connection with the able papers of our President on the subject of alcoholic paralysis.

There is, unfortunately, a certain amount of scepticism still remaining on this subject in the minds of some of our leading English opthalmologists. This, I think, may be due to a certain extent to the opinion expressed by Mr. Jonathan Hutchinson, that "alcohol has an inhibiting affect on the toxic effects of tobacco on the optic nerve." Jonathan Hutchinson, jun., however, reports two cases of alcohol amblyopia, and he, together with Nettleship, Walters, Lawford, and a few others are the only English opthalmologists who have recorded cases.

I do not intend, however, to take up your time discussing the occurrence of such an affection, but ask you to assume with me that it undoubtedly does occur ; and one has only to read the writings of Ohthoff, Leber, Samelsohn, Maynau, and many others to have the assumption made positive. I will go on at once to speak shortly of the etiology of the disease, next the symptoms and ophthalmoscopic appearances, and, in conclusion, try and explain these by the pathological changes found in the optic nerve.

Etiology.—Alcohol, as a cause of amblyopia or amaurosis, has long been recognised by authors in England, such as Wardrop (1834), Wharton Jones (1865), &c., &c. But it was not until Leber, in 1876, wrote his work that we had any accurate knowledge of the subject. The cases on record have nearly all occurred in spirit drinkers. In England I have seen cases in women due to the drinking of cheap brandy and gin. In Germany the chief liquors are kümmel, rum, nordhäuser, &c., all being made up of potato spirit, and containing a large amount of fusel oil. This latter, I believe, being the chief etiological factor of the disease. Ohthoff has recorded one case of a man who stated that he drank 11 or 12 bottles of champagne daily. I have also seen one case in a man who drank large quantities of wine. I think, on the whole, that we are correct in saying that the greater number of cases occur in spirit drinkers, and especially in drinkers of bad spirits.

It may be interesting to add here that several investigators, such as Ludger-Lallemand, Kremiansky, and others, have attempted to experimentally produce the effects of chronic alcoholism in animals, unfortunately none of them seemed to have made any records of the state of the optic and other peripheral nerves.

Symptoms.—The chief complaint of the patient is a gradually diminution in the visual acuity in both eyes—one may, however, have been attacked first—but the second soon follows. Of course in cases of chronic alcoholism the other signs and symptoms of that disease, or of alcoholic paralysis are present. In 138 cases of alcohol amblyopia examined by Ohthoff the affection was confined to men and was double sided. The age of patients is almost always tolerably advanced—the affection being most common between the ages of 30 and 40.

The acuity of vision is seldom less than 5/60, and may be slightly more in one eye than the other; but it generally has progressed sufficiently to prevent the patient from following his employment.

Another symptom which is always present, but is not always recognised by the sufferer, is loss of central colour perception.

Sometimes there is marked night blindness (hemeralopia), although I am inclined to think this is not so frequent as some writers maintain. Either associated with, or independent of, this condition we have in some cases that remarkable appearance which has received the name of "xerosis of the conjunctiva." This consists of a small, generally triangular, patch on the conjunctiva at the external margin of the cornea. It has a vesicular appearance, the vesicles or small bullæ being collected together, it is said to be due to a micro-organism and to be invariably associated with hemeralopia; this latter assertion is, however, erroneous.

Other symptoms which may be present, are generally due to the general condition of the body or to some coincident affection.

On taking the visual field with the perimeter, we find an invariable deviation from the normal, viz., a central scotoma.

In by far the larger number of cases, this scotoma is only a relative one for red and green. In a few cases there has been the usual one for red, while green has been unrecognised throughout the whole area of the field. This scotoma is usually small in extent and of an oval shape—the long axis of the oval being horizontal; it exends usually from the inner side of the fixation point to a point external to the blind spot. The shape and position of this scotoma has given rise to much debate on the part of Hirschberg and others, with regard to its diagnostic importance between alcohol and tobacco amblyopia. This author states that in the latter affection the scotoma is paracentral, and in the former pericentral. This is not found to be the case, and the shape, very probably, depends on the position of the minute portion of the retina used for fixation.

The scotomata for red and green are generally the same size, and diminish in intensity from the centre to the periphery. In the centre, red appears as dirty white, and gradually towards the periphery assumes its proper colour. The same is the case with

green. As the patient progresses towards recovery, the scotoma gradually disappears from the periphery towards the centre.

Ohthoff states that in 135 cases there was in 18 a small central scotoma for blue, this is usually smaller than that for red and green, but in a few cases was the same size. In about 5·2 per cent. of these cases there was a small absolute central scotoma. Very seldom do we find a large central absolute scotoma surrounded by an indistinct area for blue, while red and green are, nowhere perceived. With regard to the peripheral margins of the field, they are generally normal; in fact, some authors say that they are invariably so, and when contraction does occur, it is due to some concomitant affection, such as hysteria, epilepsy, &c.

Samelsohn says, that when the central scotoma is of abnormally large size, a peripheral contraction was generally found; this is certainly not the case for white, although it may be for colours.

Ophthalmoscopic Appearances.—If we refer to the various ophthalmic text books, we find that authors seem undecided on this point. Some do not mention it at all, others inclining to a slight neuritis, and others again to pallor of the temporal half of the papilla. Allbut has described a preliminary stage of congestion, passing gradually into white or grey atrophy, with small vessels. I am, unfortunately, unable to obtain access to the original paper, and am, therefore, unable to give any account of the vision in these cases.

I cannot do better than give, in an abridged form, a table given by Ohthoff, in his "Unter-suchungen über den Einflues des Chronischen Alkoolismus auf das menschliche Schorgan." The table gives the results of the examination of 1,000 cases of patients addicted to excessive use of alcohol.

I.—*Pathological white discolouration of the temporal half of the papilla;* 139, 13·9 per cent.

(*a.*) In 60 of these cases there had been, or was at the time of examination, some visual disturbance.

(*b.*) In 65 no disturbance of vision.

(*c.*) In eight cases no functional examination was possible, owing to the mental condition of the patients.

(*d.*) In four cases there was also slight pallor of the inner half of the papilla.

(*e.*) The atrophic discolouration of the outer half of the papilla was twice complicated with cloudiness of the inner half.

II.—*Present or former Alcohol Amblyopia without ophthalmoscopic changes;* 9, 0·9 per cent.—In three of these cases the visual disturbance was transient and slight, lasting only from 5—21 days. In the other six cases the disturbance of vision was recent and considerable, with central scotoma for colours.

III.—Slight but distinct pathological cloudiness of the papilla and in part of the surrounding retina; 53 times, 5·3 per cent.

(*a.*) In 13 cases the cloudiness was confined to the papilla—twice only on one side, twice with abnormal redness of the papilla, and once with a slight retinal hæmorrhage.

(*b.*) In 40 cases the papilla and the neighbouring parts of the retina were affected. Only in six cases was this one-sided, and in two the papilla was much reddened.

IV.—*Distinct Hyperæmia of the Papilla;* six cases, 0·6 per cent.—Only in one case was this associated with amblyopia.

V.—*Retinal Hæmorrhages;* seven cases, 0·7 per cent.—Six times complicated with epileptiform convulsions, and possibly resulting from them.

The table goes on to give an account of changes in the pupils, ocular muscles, &c., which I shall not enter into.

We cannot fail to perceive from the above analysis that the most common appearance is the pallor of the temporal half of the papilla. In an examination of 100 cases of alcohol amblyopia this author found this change in 63, while in 28 there was no change, and in nine a slight neuritis was present.

We must admit that it is difficult to draw a hard and fast line between normal and abnormal pallor of a portion of the papilla, and the attempt should only be made by one skilled in the use of the ophthalmoscope. Still I think, if we exclude those cases which are doubtful, we can arrive at a pretty correct conclusion. The difficulty is, of course, increased by the fact that in most cases both eyes are affected.

Ohthoff and Moelli both examined a very large number of healthy men, and 1,000 male and 900 female lunatics. The following are the results arrived at:—Amongst the healthy men pathological pallor of the external half of the papilla was only found in one per cent. The same result was found in the male lunatics, but out of the 900 female lunatics there were only five who presented this appearance, and out of these five, four of them had been admitted on account of chronic alcoholism and its results, while the fifth was suffering from progressive paralysis, but at the same time had been given to alcoholic excess.

The diagnostic points of this ophthalmoscopic appearance are: The temporal half of the papilla loses its ruddy tint, and assumes a whitish, pale blueish, or even greenish hue. This discolouration extends quite to the periphery of the papilla, which is not the case in a normal papilla, where the periphery of the pale physiological cup still retains its ruddy reflex. In some cases only a sector of the external half appears white. Sometimes the borders of this white portion are very distinctly defined, while in others a gradual shading off is found. I do not propose to enter into the differential diagnosis of this affection, suffice it to say that at present we are hardly able to distinguish it from tobacco amblyopia, except by the history and the presence of other signs of alcoholic excess.

The points to be borne in mind are : That in no case yet on record has absolute blindness been found ; that the defect in the visual acuity and the field of vision is confined to the centre of the retina; or, rather, to those nerve fibres running outwards from the papilla to the macula, which fibres have received the name of macula-papillary. Lastly, that in uncomplicated cases improvement always occurs when the cause is removed. We have now to see how far these facts can be explained by the results of anatomical investigation.

Pathological Changes.—Many authors have given us descriptions of these changes during the last few years. One of the first was Erisman, in 1867, who found great thickening of the connective tissue in the septa of the nerve and in the vascular sheaths. Also that these changes were limited to the outer part of the nerve. He was followed by Leber, Samelsohn, Nettleship, and Walters in England, and also Vossius and Bunge in Germany. But perhaps the most accurate examination was made by Dr. Ohthoff, now Professor of Ophthalmology at Marburg. He made a most careful and minute pathological examination of seven well-marked cases of alcohol amblyopia, and published the results in two most interesting papers in Grnefe's "Archiv für Augenheilkunde," 1886-7. I have also examined two cases, but, unfortunately, in both of them I only obtained the globes and a very small portion of the optic nerves, but in both, so far as I was able to examine them, the same results were found as I am about to describe. For this purpose I cannot do better than give you a very short account of Ohthoff's first case.

The patient was a barber, named Hüzman, aged 34 years, he had had three attacks of delirium tremens, and on admission to the Charité, shewed all the symptoms of chronic alcoholism and amblyopia. Patient died about three months' after admission from weakness and paralysis. The optic nerves, chiasma, and tracts were removed and hardened in Müller's fluid, and then in alcohol. Longitudinal sections were made through the papilla as far as the lamina cribrosa, and then repeated transverse sections through the nerve, chiasma, and tracts. These sections were stained by various methods—by carmine, picro-carmine, hæmatoxylin, Weigert's method, and perhaps best of all with the double stain of picro-carmine and hæmaoxylin. The section through the papilla shewed that the outer part of the nerve was alone affected, and that the diseased portion had a wedge-shaped appearance, the apex of the wedge pointing to the central vessels; 6-7 m.m. behind the bulb this wedge had become crescentic, with the convexity outwards in parts bordering on the inner sheath of the nerve; 14 m.m. behind the bulb the crescent became an upright oval, at first lying to the outer side of the nerve, but gradually becoming central, axis occurring about the anterior part

of the optic canal. In the intra-cranial part of the nerve the oval became more and more flattened from above downwards, until its long axis assumed a horizontal position. In the anterior part of the chiasma the degenerated masses were disposed in two portions towards the outer sides. These two portions gradually approached towards the centre of the chiasma, and in the posterior part they overlapped. In each optic tract the degenerated portion had a central position; the size of this gradually diminished, and in the posterior part of the tracts had disappeared.

On examination of a section through the papilla and adjacent part of the retina, the inner half of the former with the corresponding portion of the retina were found healthy, while the remainder shewed pathological changes. The retina was affected throughout, but particularly the nerve fibre layer, which was much thinned, but shewed no increase of the connective tissue elements. Both it and the outer part of the optic nerve, as far back as the posterior surface of the lamina cribosa, shewed those changes which are seen secondarily to primary grey degeneration of the optic nerve. Posterior to the lamina cribrosa quite a different form of disease was found. Here the whole of the outer part of the nerve was much shrunken and contracted; and although longitudinal bundles of nerve fibres could still be made out, they were much fewer and smaller than normal. Further back the contraction was not so marked, and the various changes could be better observed. The chief of these was the enormous increase in the connective tissue elements of the trabeculæ, the nerve spaces being therefore much diminished in size; so much so that in some places they seemed almost entirely to have disappeared, but with a high power small islands of nerve tissue could still be made out; and though many of the nerve fibres were undoubtedly destroyed, there were still healthy ones remaining. There was also a considerable growth of new vessels to be seen among the thickened septa. The processes throughout the diseased portions of the nerve were practically the same as these, but gradually diminished in intensity towards the intra-cranial portion of the nerve. The nerve sheaths were practically unaffected, except that in a few places the inner was slightly thickened.

From the above description it will be seen that the disease is primarily and interstitial neuritis, the nerve fibres being only secondarily affected owing to their compression by the new growth of connective tissue. The changes in the layers of the retina and in the fibres of the optic nerve, anterior to the lamina cribrosa, were those of descending degeneration, and affected the nerve fibres primarily.

The importance of observing accurately the site of lesions in the various portions of the optic nerve, chiasma, and tracts, is great, as it is only by this means that we can throw light upon

the subject of the course, in the nerve itself, of the fibres supplying the different parts of the retina. An examination of this kind would, I think, be interesting in cases of localised disease of the choroid or retina.

I think we have now got a sufficient explanation of those points to which I drew your attention. Actual blindness does not occur because the whole of the nerve fibres are not destroyed, those on the inner side of the nerve being generally unaffected. The central defect of vision is evidently due to an affection of that portion of the nerve elements situated between the papilla and macula. Such an affection we have seen does exist. We have further seen that the course of these macula-papillary fibres is first in the outer part of the nerve, and gradually passes to its centre. In all the cases examined, even in the parts most affected, some healthy nerve fibres were found. This would account for the fact of the central scotoma being a relative, and not an absolute one, and also for the fact that improvement occurs when the cause is removed. I will not here enter into the theories of the causation of the colour scotoma.

In conclusion, I may mention that in all cases examined *post mortem*, the ophthalmoscopic appearances were fully borne out, the pallor of the external part of the papilla being undoubtedly due to a partial atrophy; also, in some cases where there was cloudiness of the inner part of the papilla and adjoining retina, the processes were found to have extended to them.

The reason why alcohol should affect the macula-papillary fibres has yet to be found; but, if alcohol acts in such an injurious way in other respects on the affected persons, we have every right to conclude that the alterations in the optic nerve were also due to its influence. Still more when we consider the analogy between those changes and cirrhosis of the liver.

I very much regret that Dr. Drummond, in his examination of those cases of alcoholic paralysis which came under his care, omitted any investigation of the condition of the optic nerves, both *ante* and *post mortem*. I can only conclude that the pathological changes found in the nerves examined, were somewhat similar to those which I have above described as taking place in the optic nerves.

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1890-91.

JANUARY MEETING.

The Fourth Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, 8th January, 1891 — Dr. Drummond (President) in the chair. Fifty members present.

ALLEGED CHARACTERISTIC ORGANISM OF CANCER.

Dr. Limont shewed specimens stained with fuchsine and iodine green, according to the method recommended by Dr. Russell in the *British Medical Journal* of December 13th, 1890.

He said he did not believe that by this method a characteristic organism was demonstrated. He had examined several specimens of epithelioma, a scirrhus, and a sarcoma. In the epithelioma several structures were stained in the manner alleged to be peculiar to the fungus of cancer; among these were nuclei of epithelial cells, epithelial cells themselves, and especially spots of degeneration—probably hyaline. In the scirrhus the fuchsine was distributed in the same manner, but more sparingly. In the sarcoma bodies, with all the appearance of Russell's alleged fungus, were to be seen lying in the section, apparently in the intercellular structure.

In his opinion, therefore, the stain did not display anything pathognomonic of cancer, and the "fuchsine body" was not a fungus.

Dr. Peart inquired of Dr. Limont whether, in staining the so-called cancer organisms, any kind of iodine green would be sufficient, or whether "Gruber's" make, as mentioned by Dr. Russell in his paper, was essential for success.

Dr. Limont said that Messrs. Brady and Martin, chemists, did not know whether what they supplied him with was "Gruber's" make or not, but it was clearly all that was necessary.

Dr. Murphy : Mr. President and Gentlemen,—I rise for the first time in this Society, to perform a painful duty—to me a particularly painful one—but I will be as brief on the subject as it is possible to be. It will be within your recollection, Sir, that at our last meeting some demonstrations were given with injections of Koch's fluid, and on the following day an account of these appeared in the Newcastle daily papers, with other details as to where the fluid came from, and from whom in Newcastle it could be obtained. I will read you a paragraph from the *Newcastle Daily Journal*, of Friday, December the 14th, though I do not at all wish the paragraph to appear in the report of our proceedings. (Here Dr. Murphy read the paragraph.) Now, Sir, that is what I complain of, such an announcement is contrary to the traditions, the customs, and the interests of this Society, and I propose the following resolution, which I trust will meet the case ; if it does not, the members of this Society know and will do what is necessary. I therefore, Sir, propose :—"The members of the Northumberland and Durham Medical Society deeply regret that a report of a portion of the transactions of last meeting has been communicated to the Newcastle daily papers, and they trust that this expression of their disapproval of such proceeding will prevent its repetition."

Dr. Adamson exhibited a patient recovered from what he regarded as tubercular meningitis, and detailed the symptoms.

The President felt sure that the members of the Society were much indebted to Dr. Adamson for the opportunity he had afforded of discussing such a very interesting question as that he had raised, viz. : Do cases of tubercular meningitis ever recover ? For his part he strongly believed that they did. He admitted that there was much to be said against this view, and that it was very difficult to establish. But from cases he had seen, and from the way in which authorities were altering their opinions, gradually it was true, he thought that before long it would become a settled and generally received fact. No doubt the prognosis was exceedingly grave in all cases, and possibly very few did recover ; but if they acknowledged that tubercle of joints, lungs, or peritoneum recovered from time to time, he saw no difficulty in admitting the possibility of a similar state of things in connection with arachnoid. He detailed cases in support of the view he advanced, and one in particular, in which he had been able by a *post-mortem*, at a later period, to demonstrate "cured tubercle" on the membranes of the brain.

Dr. Gibson said that he had never succeeded in curing a patient with well-marked tubercular meningitis, and was inclined to believe that often, when such cures were reported, an error in diagnosis had been committed. The manifestations of simple meningitis were frequently almost identical with those of the tubercular

disease ; and the same difficulty was often experienced in the diagnosis of typhoid. The items of diathesis, and previous health, were required to complement diagnosis. And it should be remembered, in *post-mortem* examinations, that the presence of tubercle in the cerebral membranes did not involve the necessity of a previous meningitis. The patient under consideration did not display well-marked diathetic peculiarities, and the symptoms reported were certainly not those which emphasise the existence of tubercular inflammation.

Dr. Peart asked whether we should consider all these cases of acute hydrocephalus to be really tubercular in their nature? Many of them, of course were, as we found granular tubercles in the membranes at the base ; but they generally ran so rapid a course, nearly always dying in fourteen days with remarkable regularity, while tubercular meningitis was in a characteristic form a chronic disease which extended often over many months ; or whether some of them might not be cases of simple non-tubercular meningitis.

The few cases which recovered (and, if tubercular, there should, one would think, be none such) were, as far as Dr. Peart's experience went, always damaged in some of their cerebral functions, either in mind or in some of their special senses, such as hearing, &c.

Dr. Martin : One sometimes sees, Mr. President, cases in which the second stage of tubercular meningitis is so prolonged, and with so much subsidence of symptoms, that it appears as if the third, or comatose, stage would not supervene, but that convalesence would ensue. I have in my mind at present two such cases. Might not Dr. Adamson's case have been of that nature, with convalesence gradually going on, instead of the case ending in coma?

Dr. Anderson thought that the case shewn by Dr. Adamson had possibly been a case of "cerebral irritation" from some other cause than tubercle, notwithstanding the existence of many of the symptoms of tubercular meningitis. He had seen several cases of "cerebral irritation" in practice so closely resembling tubercular meningitis which, had death occurred, would have been assigned to that cause. He did not consider it likely that recovery would result after the effusion stage of tubercular meningitis had been reached.

Dr. Oliver : I cannot say whether this has or has not been a case of tubercular meningitis, but I should just like to say a word or two upon the question which Dr. Adamson has raised as to the curability of tubercular meningitis. In my own mind I have not the least doubt about the curability of tubercular inflammation of the membranes of the brain. Tubercular disease when affecting the chest or abdomen is under certain circumstances curable. Why,

then, should this fortunate result not occur when the disease has attacked the meningis? A few years ago I attended a child, nearly two years of age, for meningitis. The mother, when *enceinte*, and for several months before becoming pregnant, suffered from caries of the femur, which was discharging pus through a fistulous opening at the time the little patient was born. In the illness I allude to, the child had all the symptoms of meningitis, accompanied by high temperature, convulsions, paralysis of one leg, unequal pupils, squint, and for two or three days was comatose, but in the end she recovered, and is now a bright healthy girl, though somewhat pale and nervous. Considering the scrofulous family history and the peculiar morbid conditions which surrounded her birth, the child was regarded by me as suffering from tubercular meningitis, and the fact that she recovered has never in any way removed from my mind the feeling with which I then regarded the case, as I do still, as having been one of tubercular meningitis. Dr. Bristowe, a few years ago, dealt with this question of the curability of tubercular inflammation of the brain, and shewed by *post-mortems* that where patients died years after a cerebral illness, which was at the time regarded as tubercular, there were found the shrivilled remains of tubercular material at the base of the brain. I, therefore, from my own experience, supported by that of Dr. Bristowe, built upon *post-mortem* corroborations, gladly give my support to the opinion expressed by Dr. Adamson.

LUPUS TREATED BY KOCH'S METHOD.

Dr. Limont shewed, for Mr. Page, two boys who had been treated by Koch's method for a month. Both were about 14 years of age, and both had been treated previously several times by scraping.

The injections were given in the usual way; each boy had had six injections with gradually increasing dozes. The usual reactions, local and general, followed.

The patches of disease were in both considerably diminished.

So far as these cases had gone the result obtained was not to be compared with that obtained by scraping and the subsequent application of caustics. This older method gave a better result, in a much shorter time, and with less discomfort and suffering to the patient. Possibly Koch's method would give results which were more permanent than those following scraping often were, but that had still to be proved.

LUPUS OF NOSE AND FACE.

Mr. Chas. L. Lightfoot: The patient, Kate I., aged 21, applied to me in February, 1888, suffering from lupus of the nose and upper lip. She stated that the diseased portions had been scraped and cauterized on no less than nine previous occasions, both by

Dr. Proudfoot, of Newbiggin, and also at the Newcastle Royal Infirmary. A few days after seeing her, I scraped the diseased portions thoroughly with a Volkmann's spoon, and then applied a paste of the following composition :—

Acidi Lactic.
Kaolin ā ā ℥ss.

This I removed in two days, and found a healthy granulating surface, which healed up in the course of a week.

My reason for shewing this case is to point out the undoubted effect of lactic acid on tuberculous tissue. This is, I think, well shewn in cases of tuberculous laryngitis, where the diseased portions are first scraped and then swabbed with a 40 per cent. solution of lactic acid. This treatment has been, and is still carried out successfully by Krause, of Berlin, and Hering, of Warsaw.

I may state that about the same time I had two other cases of lupus of the face, both of which had been previously operated upon; these I treated in the same manner, and they are perfectly cured at the present time.

Dr. Plummer, in the absence of Dr. Arnison, shewed a patient, a woman, aged 50, on whom he had operated with success for the cure of fæcal fistula. It had originated in a "Littres" hernia, right femoral, which had become grangrenous from strangulation, giving rise to the formation of an abscess and permanent fæcal fistula. The discharge looked like the contents of the small intestine, but natural fæcal discharge passed per anum, and enemata of water, administered per anum, passed out of the fistulous opening.

At the operation the opening was found in the small intestine which lay at the femoral ring, fixed by adhesions. About two-thirds of the calibre of the gut remained. A large opening existed on the convexity of the bowel; this was closed by Lembert's sutures, closely applied. The patient made an uninterrupted recovery. The bowels were kept confined for several days. The patient fasted for twenty-four hours, and was kept on sparing diet, and gradually improved for ten or twelve days afterwards. The operation wound healed quickly, but the track of the fistula remained for some time before it healed by granulation. The bowels now act naturally, and without pain or discomfort.

Dr. Murphy: The patient which I have the pleasure of introducing to you now, is a man, æt. 45, on whom I performed cholelithotomy on November 25th. He was admitted into the Sunderland Infirmary a few weeks previously, under the care of my friend and colleague, Dr. Coke Squance, to whom the responsibility and the credit of the diagnosis belong. He had characteristic hepatic colic for some weeks, no jaundice, and an indistinct tumour the

size of a fist could be felt over the gall bladder. I opened the abdomen immediately over the tumour, which I then aspirated and withdrew four ounces of typical effluorescent fluid. I then opened the bladder and removed with a lithotomy scoop this stone, almost the size of a pigeon's egg, when bile at once appeared. I stitched the bladder to the wound, and the man has made an excellent recovery.

Dr. HUME shewed a patient, a young man, aged 27, who had been operated on for relapsing typhlitis. The patient had been in good health till he met with an accident in March, 1889. He was employed as a platelayer on the railway, and in jumping on to an engine in motion he slipped and fell across the rails of the down line. He struck his right side against the rail, and was immediately seized with severe pain in the side, and vomited. He was confined to bed for three days, suffering a good deal of pain and having some difficulty in passing water. After getting back to work he had slight pain in the right side nearly every day, coming on especially when he was tired. This pain gradually increased, until in the month of October he had to give up work. The attack lasted some weeks, and was characterised by severe pain, occasional vomiting, constipation, and occasional retention of urine. In the beginning of January, 1890, he was able to resume work, but in another month was again laid up with a similar attack. This attack confined him to bed for two months. From then to the date of his admission to the Royal Infirmary (5th June, 1890) he was constantly labouring under recurrences of his illness, of greater or less severity. On his admission there was a lump in the right lumbar and iliac region, not reaching quite to the crest of the ilium, and extending to about the outer margin of the rectus. The operation was performed on 27th June. The peritoneal cavity was opened to the inner side of the mass. The mass was found to consist of (1) omentum adherent to parietal peritoneum, and to subjacent parts; (2) the cæcum; (3) a coil of small intestines; (4) the fundus of the bladder. These adherent parts were carefully separated, chiefly by scissors. The appendix vermiformis was found acutely bent, distended, and altogether adherent to the wall of the cæcum. It was separated, ligatured at the junction with the cæcum, and removed. The wound was closed with silkworm gut sutures; no drainage tube was used.

The patient made a good recovery, and has since had no recurrence of his attacks. He is now at work of a lighter kind, and was shewn to the Society in good health.

IDIOPATHIC GANGRENE OF PENIS.

This specimen I obtained from a patient, æt. 66, whom I saw first on December 27th. He gave me the following history. For

the past fortnight he has been confined to bed with sub-acute bronchitis. Four days ago he felt some pain on micturition, and on looking at his penis he discovered it was much swollen and black. When I saw him the whole of the penis, except half-an-inch, was gangrenous. The line of demarcation was well formed. There is no pain except a slight scalding on micturition, and he has no venereal disease; nor has he any knowledge of having received an injury to the parts.

I ordered charcoal poultices to be applied, and in four days the specimen I now shew came away.

My reason for shewing it is that I believe it to be a unique case. On looking up the literature of the subject I can find no case of idiopathic gangrene recorded, except after typhus and typhoid fever. A strange coincidence in this man's history is that 26 years ago he lost both his legs, below the knees, from gangrene—the result of exposure at sea for six days on a raft.

PELVIC HÆMATOCELE.

This preparation was obtained from a woman, æt. 25, married, who came to me on October 1st, 1890, complaining of "flooding," of five weeks duration, and severe colicy pain.

History.—She has been married three years, and has a child fourteen months old, which she was still suckling when she came to me. There is no history of any pelvic trouble after her confinement. Two months prior to the commencement of the flooding (*i.e.* thirteen weeks ago) she had not menstruated, but did not think she was pregnant. She has had during the last five weeks attacks of colicy pain in the lower part of the abdomen, sometimes so severe that they lasted $1\frac{1}{2}$ hours, and compelled her to writhe about the bed.

The discharge has been thick and stringy; no sickness; frequency of micturition and tenesmus are present.

Per Vaginam.—There is a soft fluctuating mass, the size of a small fœtal head, in the posterior fornix, low in Douglas's pouch, and pressing the uterus forward against the pubes. The swelling is fairly moveable. The cervix is soft and patent.

Diagnosis.—Extra-uterine gestation of about three months.

I advised the patient to come into the hospital under my care, but she went home, returning in a week (October 8th). She was then so ill that she could with difficulty walk. I ordered her at once to the hospital, and, on visiting her shortly afterwards, found her temperature 105 degs. F.; pulse 160. She was breathless, but there was no blanching and no pain. The swelling was a little larger than last week, but intact. She had very severe diarrhœa with great tenesmus.

I thought of operative interference, but the patient's condition was so bad that I considered it unjustifiable, and my brother, who saw the case with me, agreed in this decision.

She gradually got worse, the temperature remained high, and the diarrhœa continued in spite of all treatment. A hypodermic needle, introduced into the swelling, drew off a few drops of dark blood.

She rapidly sank into a typhoid condition, and died on the 13th day after admission into the hospital.

The cause of death, of the high temperature, and the diarrhœa, was no doubt the absorption of pyrogenous material from the blood extravasated into the pelvis.

In May last I operated on a case presenting similar points in the diagnosis of extra-uterine pregnancy, and in neither that case nor this, after careful search, could a fœtus be found.

The pelvis which I am able to shew whole shews a pyosalpinx of the left tube. The right tube was found greatly distended with blood clot. The tube had ruptured into the broad ligament, and the hæmorrhage still continuing, the blood had gravitated down between the peritoneum and the pelvic fæcia, stripping off the peritoneum from the floor of the pelvis. The right ovary is lying posteriorly. The uterus and bladder are jammed against the pubes and the rectum against the sacrum.

EXCISION OF RECTUM.

The patient, whose rectum I now shew, was a woman, æt. 51, who came to me on May 7th, 1890, complaining of "piles." The history briefly is as follows:—Five months ago she began to suffer from pain on defæcation, and a constant burning sensation in the rectum, so severe that it kept her awake at night. Two months ago she first noticed what she thought was piles protruding round the anal margin. These increased in size, and the pain became very severe. She has lost nearly two stones in weight. On examination, I found bunches of epithelioma round the muco skin surface of the anus, and extending for about $1\frac{1}{2}$ inches beyond. The anal orifice is patulous. On introducing the finger, which caused severe pain, a ring of epitheliomatous tissue could be felt, extending up posteriorly about $3\frac{1}{2}$ inches. Anteriorly there is a communication through the recto-vaginal septum, and the growth extends to within an inch of Douglas's pouch. On May 14th I performed inguinal colotomy, from which the patient recovered without a bad symptom.

On June 25th I excised the rectum as follows:—An elliptical incision was made on either side, from the middle of the ostium vaginæ, backwards to the tip of the coccyx, extending laterally to the tubera ischii. The lateral parts of the ischio rectal fossa were cleared with the finger and scissors until the levator ani was

reached. The rectum was then freed posteriorly. The recto-vaginal septum was now clipped away clear of the growth, and the rectum freed anteriorly by working close to Douglas's pouch. In freeing it in this region the peritonæl cavity was opened. A sponge was at once put over the opening, and, as soon as the rectum was removed, it was stitched with a continuous suture of silk. Four inches of rectum were removed posteriorly, $3\frac{1}{2}$ anteriorly. The patient made an uninterrupted recovery, and since the operation has improved wonderfully. I saw her to-day (six months after the operation). She has gained two stones in weight, and the parts are in every way healthy.

DR. A. E. MORISON'S CASE.

Dr. Gibson, referring to a remark of Dr. Hume's, said that he had no doubt of the existence of blood-tumour in the cavity of the peritonæum in some cases of pelvic hæmatocele. One of the commonest causes was rupture of the ovular cyst in extra uterine pregnancy. In the two or three verified cases which had come within his observation the blood mass was placed in the peritoneal cavity, consequent upon rupture of the cyst in Fallopian pregnancy.

A VARIX OF SAPHENA.

A beautiful example of what might be called venous aneurism in a woman of 43.

It could easily have been mistaken for femoral hernia, for it was irreducible—a fine tremor, the handling of which gave pain, and was always tender, with dull aching down the entire limb.

The diagnosis having been established, it was dissected out, and both ends of the vein tied with catgut, and the wound closed.

There were no symptoms, and the cure was complete and rapid.

Mr. Rutherford Morison shewed the bones of a forearm with the muscular attachments dissected out.

The specimen demonstrated the deformity that follows a fracture of the radius above the centre.

A united oblique fracture could be seen running from above downwards and from without inwards between the insertions of the supinator brevis and pronator radii teres. The lower fragment had united in a position of extreme pronation, and the upper was markedly supinated. This was explained by the unopposed action of the biceps and supinator brevis on the upper fragment, and the pronator radii teres and pronator quadratus on the lower.

Mr. Morison had seen three cases during life, and in all there was loss of power of pronation and supination in the arm.

He advocated wiring the two ends with strict antiseptic precautions.

Mr. Rutherford Morison also shewed a temperature chart from a patient, aged 70, on whom ovariotomy was successfully performed.

The temperature never reached 100 degs., and recovery was so rapid that the old lady was out of bed on the ninth day.

There were two points of interest and importance in the case:—

1. That before the operation the patient had constant uterine hæmorrhage, shewing that even in old age an ovarian tumour is able to bring this about.

2. The age of the patient. Some members might remember several cases I have brought forward of patients over 70 who have been successfully operated on, and my experience has been that old people re-act little and recover well after most serious operations. This was not a simple case, as the tumour was growing into the broad ligament, from which it had to be enucleated; and if age had been considered against such an operation, the patient would have been deprived of the very great advantages this affords.

CIRRHOSIS OF THE LIVER.

The President (Dr. Drummond) shewed specimens and drawings illustrating some of the clinical and pathological varieties of cirrhosis of the liver. He drew attention to the difficulty of adopting any special classification of cirrhosis, which hitherto had been founded chiefly upon etiology or morbid changes. In his opinion, no classification could be said to be satisfactory, from a practical point of view, that failed to take notice of the clinical type of the case. For example, it was not enough to say that a patient was suffering from cirrhosis, as a correct diagnosis should include the causation—the rapidity of the process—acute or chronic, and, if possible, the distribution of the new fibrous tissue. He, of course, was fully aware that this was not an easy matter, but he thought they should aim to differentiate, so as to bring together the clinical, the etiological, and the pathological features. He wished particularly to draw the attention of members to two forms of cirrhosis of the liver, of which specimens were lying on the table. One, an acute alcoholic cirrhosis, and the other a very chronic and insidious variety of disease, probably due to an attack of scarlatina several years before death. They would observe that the liver in the first case was much enlarged, it weighed $7\frac{1}{2}$lbs., its surface was smooth, and it was of a pink-yellow colour in section, with patches here and there of red mottling resembling nutmeg. No where was there any new fibrous tissue to be seen separating lobules or groups of lobules. Under the microscope, the liver structure was observed to be diffusely infiltrated with small round cell growth, such as is to be seen in all cases of recent cirrhosis. The spleen was much enlarged. The patient was a labourer, 36 years of age. He was admitted

into the Royal Infirmary, suffering from pain in the chest and abdomen, jaundice, cough, shortness of breath, delirium, with high temperature—twice it was over 104 degs., and rapid pulse. The illness was of about four months' duration, though the more alarming symptoms only set in about a fortnight before his death. There was marked alcoholic history. This was the second case of the kind in which he (the President) had been able, by *post-mortem* examination, to verify the form of disease.

In the second case the liver was small and extremely tough, with an approach to the hobnail appearance on the surface. It was of a pale fawn colour, and weighed 35 oz. The spleen was enlarged. The patient was a young woman, aged 17, single, who came under observation about twelve months before. From the first the symptoms were obscure. She complained of ill-defined abdominal pain, dyspepsia, great mental depression, and very slight jaundice, with marked general pigmentation of the skin, such as may be seen in a case of Addison's disease. About two months before her death, left pleural effusion developed, and later ascites, whilst the jaundice deepened, though it was never present to a high degree. There was no history of alcoholism or syphilis. At the *post-mortem*, in addition to the cirrhotic condition of the liver, the left supra-renal capsule was found to be markedly atrophied and fibrous. In the President's opinion, the changes found were fairly to be ascribed to an attack of scarlet fever some years previously.

Dr. Hume shewed a tibia which had been pegged with ivory pegs, in the Durham County Hospital, for ununited fracture, eight years ago. Firm union had taken place, but in bad position. The bone was refractured in the Edinburgh Royal Infirmary, but the limb was greatly shortened and useless. The patient applied to Dr. Hume to have his leg amputated, and in section of the bone the ivory pegs were found in position, and entirely unaltered.

NORTHUMBERLAND AND DURHAM

MEDICAL SOCIETY.

SESSION 1890-91

FEBRUARY MEETING.

The Fifth Monthly Meeting of this Society was held in the Library of the Royal Infirmary, Newcastle-upon-Tyne, on the evening of Thursday, 12th February, 1891—Dr. Drummond (President) in the chair. Fifty-four members present.

MYXŒDEMA.

Dr. George Murray: I have brought this patient before you this evening as a good typical case of myxœdema, and also because I wish to have your opinion upon a mode of treatment which I believe to be new, and which I propose to try in this case.

The patient is a woman of 46, she has had a family of nine children, of whom six are living. Four or five years ago, her relations first noticed that her speech and actions were becoming very slow, and she, herself, began to feel that it was a great effort to do her ordinary housework. Her features gradually became enlarged and thickened. The hands and feet also increased in size and altered somewhat in shape. At the present time she presents most of the characteristic symptoms of myxœdema. She complains of langour, great sensitiveness to cold, and a disinclination to see strangers. The features are notably thickened. This change is well seen in the alæ nasi and lips. The connective tissue of the eyelids and beneath the eyes is swollen and œdematous in appearance. It, however, does not "pit" on pressure being made, nor would any fluid exude if it were pricked as in the œdema of Bright's disease. The cheeks have the characteristic pink colouration in the centre. The tongue is not unusually large at the present time, though the patient tells me that it was enlarged at an earlier period of her illness. The hands and feet are both enlarged; the former have that peculiar shape which has been described as "spade-like." The skin is dry, and the superficial layers of the epidermis are constantly being shed. The hair is very

fine in texture, and a considerable quantity of it has been lost. Her speech, you will notice, is remarkably slow. No thyroid gland can be felt in the neck. The urine contains no albumin. This peculiar disease, as is now well known, is due to the absence of the thyroid gland. It has followed the removal of this gland for goitre in man, as was pointed out by Prof. Kocher of Berne. Mr. Victor Horsley has also succeeded in producing the same disease in monkeys by the removal of the thyroid. The symptoms, then, are due to the absence from the system of some substance which is secreted by the normal thyroid gland. Attempts have been made to supply this deficiency, by grafting portions of the thyroid gland of one of the lower animals under the skin or in the peritoneal cavity of myxœdematous patients. This operation has been followed by great improvement in the patient's condition, though the symptoms have reappeared when the grafted piece of gland atrophied.

In one case, Bettencourt and Serrano, of Lisbon, introduced the half of a sheep's thyroid gland beneath the skin of the infra-mammary region on each side. This was followed by an improvement which commenced the day after the operation. They concluded from this that the improvement was not due to the implanted gland becoming vascularised, and so able to carry out its normal functions, but to the absorption of the juice of the grafted thyroid into the circulation.

It has occurred to me that it would be worth while to try the hypodermic injection of an emulsion or extract of the thyroid gland of a sheep. This treatment appears to be rational, and, at any rate, would not harm the patient. We may, I think, by this means hope to produce as much improvement in a case of myxœdema as was brought about by the absorption of the juice of a piece of the gland which had been introduced beneath the skin, and it has the advantage of being a much simpler proceeding.

Dr. Gowans said the case that Dr. Murray has just shewn to the Society is undoubtedly one of myxœdema. Besides the usual facial and cutaneous symptoms which characterise the peculiar malady, he wished to draw attention to a sub-normal temperature of no less than two degrees in Dr. Murray's patient; also the thyroid gland could not be felt; and an interesting fact in the life history of the patient, that of severe hæmorrhages at one period. In his experience, extending over a considerable number of cases, the history of severe bleedings was almost invariably present. In regard to the treatment, Dr. Murray proposed to adopt in his case, it certainly was a novel and original one. He, however, cautioned Dr. Murray against hurriedly coming to a favourable opinion of its effects, as patients suffering from myxœdema frequently had periods of apparent improvement, especially during mild weather. As a

surgeon he felt much inclined to adopt the procedure recommended by Horsley, of grafting thyroid tissue. In answer to Dr. Morison's question as to how long he had had cases of myxœdema under observation, he begged to state that he had the pleasure of exhibiting the first case recognised in the North of England, about twelve years ago, to the members of this Society; and that patient he has had under his observation for eighteen or nineteen years. She is still alive, and in somewhat better condition than when exhibited here.

ENDOCARDITIS IN THE PIG.

Dr. George Murray: These three hearts were very kindly given to me by Mr. Clement Stephenson. Each of them presents an extreme form of endocarditis. In two of them the mitral valves are covered by very large vegetations, some of which are as large as small walnuts. There are also some small vegetations on the aortic valves. In the third specimen all the valves are diseased. The valves of the right side of the heart are, however, much more affected than those on the left.

On examining a section of one of the large vegetations under the microscope, the central part is seen to consist of young connective tissue or organised lymph. The outer part of the vegetation consists of a structureless layer of unorganised lymph.

In sections stained by Gram's method, this outer layer is seen to contain enormous numbers of a small bacillus. This bacillus is probably the cause of the disease, though this cannot be proved till pure cultures of the bacillus have been obtained and experiments made. Micro-cocci have often been found in endocarditis in man; but, as far as I know, no bacilli. It is important for agriculturists to find out if the bacillus in this disease is the same as that found in swine fever, for Mr. Stephenson tells me that these pigs had not the symptoms of swine fever. If this bacillus turns out to be the same as that of swine fever, it will be necessary to consider pigs with this disease as infectious, and they will have to be dealt with accordingly.

Dr. Arnison shewed two cases of excision of the wrist, one done nine years ago, the other two years ago, by Lister's method, both shewing useful hands, with free movements of wrist and fingers. Dr. Arnison contrasted the different methods of performing the operation, by incision across the division dividing the tendons—by a single long dorsal incision—and by Lister's method, all of which he had employed, but gave the preference to Lister's, as affording ample facilities for doing the operation, and giving the best results.

Mr. Black: Dr. Arnison has described three methods of excising the wrist joint, and is to be congratulated on the results attained

in these patients. There is a fourth operation, viz., by single ulnar incision, which is highly spoken of, and has been very successful in the hands of Mr. Miller, of the Royal Infirmary, Edinburgh. An incision is made along the ulnar side of the joint, the lower end of the ulnar is removed, and the carpus is protruded through the opening thus made. There is ample room for the necessary manipulations, a dependent opening for drainage, and very little interference with the extensor tendons. The operation by transverse incision across the dorsum, with division of the tendons, seems to me unnecessarily severe, and to increase the dangers of the operation by laying open the sheaths of the tendons, with its accompanying possibilities of suppuration and matting together of these structures.

Dr. Page: These two boys, suffering from lupus of the face, were, in my absence, kindly shewn to the Society last month by my colleague, Dr. Limont. They had then been under treatment with Dr. Koch's fluid for one month. They have now been under treatment for two months, and have received in all thirteen injections each. We began by injecting one cubic millimetre, gradually increasing the dose till on the last occasion they received respectively twelve and fourteen millimetres. I am anxious for the members to form their own opinion as to the amount of improvement which has taken place. They are both improved; but neither of them are cured, and in the case where a considerable portion of the face is affected, though there is improvement in certain portions of the skin implicated, in other directions the disease has spread. All round the margin fresh apple jelly granulations have sprung up, and they are extending over a wide area. So far, I must say, I am disappointed with the result. I shall not pursue the treatment. It is my intention now freely to scrape away the granulations, and use the preparation of lactic acid, as recommended by Dr. Chas. Lightfoot at the last meeting of the Society. I shall employ that preparation as an experiment. I have not used it before; but I have repeatedly seen cases of lupus healed (temporarily cured) by various applications, and of these I have been in the habit of trusting most to black wash or some other preparation of mercury. At the next meeting of the Society I will again shew these boys, and I hope I shall be able to do so in an improved condition.

This patient is 13 years of age. Six years ago, she was confined to bed for a long time, suffering from inflammation of both hip joints, and during her illness was allowed to assume the position in which she was freest from pain. The result was that when she recovered her legs were crossed, as you see in this photograph, and both hips were firmly ankylosed. On admission the ankylosis was found to be bony. A tenotomy knife was introduced down to

the neck of the right femur, and through the wound the bone was divided with Adam's saw. The limb was then readily straightened. The same thing was done on the left side, but the limb could not be straightened till the origin of the adductor longus had also been subcutaneously divided. The legs were then secured with starched bandages to long splints. The wounds healed at once, and in six weeks time the splints were removed, both limbs being quite straight. Cross-legged deformity from ankylosis of both hips is not common, and its treatment is not always satisfactory. The treatment, in this instance, has improved the patient's condition very considerably. She walks easier and better, and in other respects is obviously much improved. The hips are both, of course, stiff, but she has the free use of the knee joints.

This lad's wrist was excised by means of a straight incision eighteen weeks ago, and he is likely, I think, to have a very useful hand. It is useful to him now. I have not been very successful in cases of excision of the wrist, but was tempted again to try in consequence of the good results of my colleague, Dr. Arnison. I do not regret the attempt to save this boy's hand.

This child is six years old. A few weeks ago he became entangled among some waggons, and received severe injury to his right upper extremity. The arm, with the scapula attached, was almost torn off his body, and, on admission into the Infirmary, was found lying quite free from skin upon his chest, attached to the body only by nerves and the artery. The vessel was not torn across, but the internal coat was divided from over-stretching, and a clot of blood at the point firmly plugged the artery. A pair of scissors soon freed the limb. Very little blood was lost, and the child was not shocked, nor complaining of much pain. The wound was closed with sutures. Some skin sloughed, but healing went on rapidly, and there is now only a very small cicatrix. I had to remove two inches of the collar bone. I do not remember ever to have seen the arm, with the scapula attached, torn off in this way before, though I have on more than one occasion seen the arm torn away at the shoulder joint, leaving the scapula attached to the trunk.

Professor Philipson introduced the boy, suffering from lupus, who was the first patient injected with Koch's lymph, at the Royal Infirmary, Newcastle, on December 9th, 1890. He also presented the temperature chart, with hour records, and photographs, taken before the first injection, and subsequently. He stated that the injections had been repeated once each week, and that the dose had been gradually increased from one milligrame to seven milligrames. The reaction had varied in amount, the highest temperature had been 105 degs. Fahr. Upon this occasion, the respirations had numbered 46 in the minute, and the pulse had been 136. The constitutional disturbance at times had been great, the chief

complaint had been of occipital headache. Often, on the early morning of the second day after the injection, the temperature had been sub-normal. After the first injection, the local effect was considerable; after the later injections, it was less. At first, there was a good amount of exudation of lymph into the lupus tissue, which became encrusted, and shelled off; later, this was less. The daily amount of urea in the urine had been estimated. The average daily amount, previous to the commencement of the treatment, was 250 grains. On the day after the injections the amount had varied from 800 grains to 1000. The boy's general health had not suffered. The lupus patches had improved, but were still existent.

Professor PHILIPSON expressed himself as hopeful for a further improvement from a continuation of the treatment. He intended to continue the injections, and to increase the dose by one milligrame.

LUPUS.

Dr. VICKERMAN RUTHERFORD shewed an aggravated case of lupus vulgaris, involving the nose, the cheeks, and the lips of a boy, aged 10, who had received great benefit from seven injections of Koch's lymph. The case is still under treatment.

Dr. MARTIN: The last two cases of lupus I have had, Mr. President, have done very well under Dr. Unna's salicylic and creosote plaster muslin, the proportions being 10 and 20. This, combined with scraping, will be found to be of great use in many cases.

REMARKS ON KOCH.

Dr. REDMOND "had always been rather sceptical" as to the marvellous results attributed to this plan of treatment; and, having had several opportunities of observing the progress of those cases upon which the remedy was being tried in the wards of the Royal Infirmary, he must confess to not being very favourably impressed with the results so far. Regarding the case of lupus now shewn, as under treatment by scraping, and application of iodoform, its progress compares very favourably with that of similar cases undergoing Koch's treatment.

Dr. EMBLETON enquired if there had been a single case of cure brought forward under the Dr. Koch treatment of lupus or phthisis, and the answer was in the negative.

NOTES ON CASE OF FLOATING KIDNEY.

Dr. LYON: I showed this case to the Society a few years ago as a case of floating kidney, and several members expressed doubts as to the diagnosis. A fortnight ago I came across the case again, when I found the patient much thinner and the symptoms much

more distinct, and thought it would be of interest to bring her again before you. The tumour is now very distinct and very movable. The sickening pain on pressure usually described is absent, the only marked symptom being considerable nervous disturbance.

PATIENT AFTER ERASION OF KNEE JOINT.

Dr. Black: This little girl, eight years of age, was admitted into the Children's Hospital, under my care, four months ago, suffering from tubercular disease of the synovial membrane of the right knee. She had been under treatment for some months as an out-patient, with steady progression of the disease. It was decided to perform the operation of erasion. A semilunar incision was made through the ligament, patella, and the flap turned back; the synovial membrane was then dissected off this and the supra-patella pouch; the crucial ligaments, external and internal lateral ligaments were next divided, and the pulpy membrane cleared thoroughly out of the posterior aspect of the joint; the semilunar ligaments, being eroded, were next removed, and a drainage tube passed backwards through the popliteal space. The joint was dried, dusted with iodoform, the ligament patella sutured, and the flap accurately adjusted with silkworm and catgut sutures. The limb was placed on a Howse's splint, and fixed in plaster. The case did uninterruptedly well, all trace of disease is gone, and, though I think movement might be obtained, I prefer to allow it to ankylose firmly, as being more likely to make a permanently useful limb.

Dr. Redmond exhibited some renal calculi passed by a patient under the influnce of belladonna.

Dr. Bramwell referred to a case, in which he removed a large calculus from the bladder of a female patient, three years ago. Six months ago, symptoms of stone in the pelvis of the right kidney again occured. They had persisted for two months before relief was sought. He prescribed a mixture containing 25 m. doses of freshly prepared Succie's belladonna, and 60 grs. of the nitrate of potash, prepared by mixing ℥ xii. of potas-bicarb. with ℥ viii. of citric acid to ℥ xii. of water; an ounce to be taken at each dose. After two or three days of this treatment, the stone passed into the bladder, without causing any great exacerbation of the symptoms during its passage. It remained in the bladder for about three weeks, causing acute symptoms, and, on several occasions, stoppage of the urine for a short time. Considering that a stone which had passed from the kidney, would, in all probability, be also capable of being passed from the female bladder, the same treatment was persisted in for some time. In spite of the stone, on several occasions, having caught in the vesical orifice of the urethra, its further passage did not occur, and it had to be crushed,

when the remnants were readily evacuated in the course of twenty-four hours. It would appear, from this case, that belladonna must have a marked power of promoting the passage of renal calculi, and that it does so by relieving spasm, and promoting regular peristaltic contractions of the involuntary muscle fibre of the ureters. The pain occasioned by the stone in the pelvis of the kidney, and its passage down the ureter, was not so great as that produced by its presence in the bladder and passage into the vesical orifice of the urethra.

TOOTH FROM OVARIAN DERMOID.

Dr. Benington showed a tooth which was found in a loculus of a multiocular ovarian tumour which he removed on September 16th, assisted by Mr. Morison and Dr. Murphy. The main cyst contained about $2\frac{1}{2}$ gallons of yellow fluid. There were many minor cysts, containing fluid of various consistency and colour. One cyst contained sebaceous matter and the tooth exhibited, which had the appearance of having been embedded in a socket, but no other bony or solid matter was found. The patient was 42 years of age. The tumour was first recognised during a labour five years ago. She has had one child since, two years ago. Lately it had rapidly increased in size. There was a history of several attacks of peritonitis, and there were parietal as well as other adhesions to post wall of uterus and sigmoid flexure. The patient did well, and went out on fifteenth day.

Mr. Rutherford Morison: B. J., 21, married six months; no children; no miscarriage; was sent into the Royal Infirmary, Newcastle, under my care, in August of last year, by Dr. Martin, North Shields.

Two months ago she noticed a purulent vaginal discharge, with scalding on micturition, and swelling; pain in external genitals; continued going about in pain three or four weeks, when she became worse, had to go to bed, and was attended by Dr. Martin for pelvic peritonitis. She has gradually improved, but the vaginal discharge continues. Dr. Martin has sent her up for an operation.

P.V., a tense cyst is felt behind the uterus, low down, pressing the uterus forward. This is fixed, and on pressing it the vaginal discharge is much increased. It is very fœtid.

Dr. Limont who kindly saw the case with me, thought the cystic swelling was too low to be tubal (the view I had taken), but recommended an exploratory incision.

On August 22nd, abdominal section was performed. In incising the abdominal wall, the bladder was accidentally opened about an inch (half-an-inch intra and half-an-inch extra-peritoneal), being pushed up by the cystic swelling, and dragged up by an adherent

tube. The incision was, at once, carefully closed by Lembert's sutures. On introducing hand, a rounded firm swelling was felt on both right and left; uterus bicornis. The right tube was found curled over the summit of the bladder, adherent to it, dilated, and pus could be seen shining through the coats. On separating the tube from the bladder, some of the contents escaped, as the summit of the bladder was blocking a hole in the tube. The ovary and tube were removed. The left tube was found to be in a similar condition, and contained pus. It and the left ovary were also removed. Neither of these structures corresponded to the large swelling that had been felt before operation. On making a vaginal examination, Dr. Limont found this swelling as before, and on gently squeezing it the contents escaped into the vagina. It was completely emptied by my hand in the pelvis pressing from above, and Dr. Limont, from below. Dr. Limont's diagnosis of hæmotocele was thus confirmed by the escape of a large quantity of breaking down fœtid clot. A drainage tube was left in the abdomen.

After progress.—The urine drawn off contained blood for the first twenty-four hours in gradually decreasing quantity. After this nothing was noticed, and no leakage ever occurred from the bladder wound.

The hæmatocele required incision on Sept. 2nd—*i.e.*, eleven days after the operation. This was done and a drainage tube inserted P.V. This gave considerable relief, as will be seen from the temperature chart; but she progressed slowly, and eventually pus of the same fœtid character made its way out of the lower abdominal wound. After this she steadily, though slowly recovered, but took about two months to get quite well. She is now, Dr. Martin tells me, in excellent health.

Mr. Rutherford Morison: This large sloughing fibroid was removed from an unmarried patient of Dr. Duggan, about 40 years of age.

History.—Five years' hæmorrhage, last two continuous, with dysuria. Lately unable to leave bed on account of pains of bearing-down character.

A week ago discharge became fœtid.

I saw her, with Dr. Duggan, during the last week of 1890. Agreed with his opinion that there was a large sloughing tumour in the vagina, and that its removal gave her the only, though a feeble, chance of getting well. It is only fair to Dr. Duggan to say that the patient had not been under his care, and that as soon as he saw her he recognised the gravity of the case, and recommended operation.

The present tumour gives no idea of the original size of the growth, as it was so œdematous as to feel very much like a cyst.

A large tumour could be felt in the abdomen, and, considering the feeble state of the patient, the large size and uncertain connections of the tumour, it was not a promising case to tackle.

On January 3rd, under ether, the sloughing apex of the tumour was exposed by separating the labiæ of the patient in the lithotomy posture. The orifice of the vagina was small. The tumour was grasped in volsella and dragged down. It was suddenly delivered with a rush. The capsule surrounding its attached part was torn through with forceps, and the tumour enucleated. The remaining capsule was now clamped and divided with scissors. The perinæum, torn during the delivery of the tumour, was stitched. The whole operation only occupied a few minutes, and, what looked on beginning so formidable a proceeding, turned out to be extremely easy.

Notwithstanding that the patient lost no blood, and had no fever after the operation, she was so weak and ill that she is now, six weeks after the operation, only able to sit up for a short time daily.

Mr. Rutherford Morison : The following is the history of this specimen, removed *post-mortem*, and shewing adherent and displaced tubes and ovaries :—Sarah Cunningham, aged 40, widow. Admitted January 14th. Died January 20th. Suffering from myxœdema. Menstrual history : Began to menstruate between thirteen and fourteen years of age. Flow normal until twelve months before death. Married at thirty-one. Husband died after five years. Menstruation normal during that time. No children. No miscarriages. One year before death menstruation became irregular ; six weeks or two months between periods ; flow excessive, with marked dysmenorrhœa. Three months before death, heavy flooding, lasting for three weeks, with severe pain. Did not menstruate again before death. No venereal history obtainable. No discharge between periods. Strong alcoholic history, especially during last year.

"Scirrhus En Cuirasse."

Dr. Bramwell : Mr. President and Gentlemen,—This case is an unusual form of ulcerating malignant disease, attacking the skin of the breast. The patient is 63 years of age, and has enjoyed good health up to the commencement of the present affection. She has had two living children and seven miscarriages. There are no indications of syphilitic disease.

Seven years ago, she nursed a lady, with cancer of the womb, and at the time got a poisoned finger and swelling in the axilla.

Six weeks after this she noticed a small swelling in the upper and outer angle of the right breast. It was hard and movable under the skin, which was not discoloured.

The lump gradually spread towards the nipple, becoming less marked in the upper part of the breast. About six months after

its appearance, she got a blow on the breast, which seems to have increased the rapidity of its growth. The skin between the nipple and under the axilla became hard and contracted, drawing the nipple and breast towards the arm pit. The process of hardening of the skin, without ulceration, proceeded slowly for five years, until the skin cracked from forcible use of the arm. Ulceration then commenced, and has proceded slowly since.

In the spring of 1889, when I saw it first, I found the breast completely drawn beyond the inner margin of the pectoralis major muscle, and the skin over the part of the chest red, hard, and indurated. The nipple was still present, lying in the anterior axillary border. Extensive superficial ulceration was present in the axilla, and over part of the front of the chest The ulcers almost completely healed by the use of various dressings and iodide of potassium and arsenic internally.

During the last six months, extension of the growth has been rapid, and the ulceration has spread considerably.

The present characteristics of the disease have many interesting peculiarities. The growth extends over the whole of the right mammary region into the axilla, implicating the skin alone, and not extending into the deeper tissues. At the margins the primary characters of the growth are seen—namely, small nodules situated in the corium or true skin elevated above the general surface, and movable on the subcutaneous tissue. The epidermis over these is at first unchanged, but it soon becomes red and thinned. These nodules increase in extent, but very little in thickness, not affecting the tissue beneath at all. New ones are also being continually formed. The skin around at certain places is hard, brawny, and thickened, and contracts greatly as the disease progresses. It may convert the whole front of the chest into a rigid mass, inflexible as a breastplate, and has on this account given rise to the the term scirrhus "en cuirasse." When the disease is so extensive the respiration may be seriously impaired. It is only when the contraction has become so great as to impair nutrition by constriction of the blood vessels that ulceration occurs. The ulceration is quite superficial, extending through the skin only, and commences in the central part of the growth first, or wherever the cicatrisation is most dense. Ulceration did not commence in this case until six years after the first appearance of the growth. The margins of the ulcers are not ragged and undermined as in rodent ulcer, but smooth, and often taper off gradually to the level of the skin surface.

The bases of the ulcers are not uneven and sloughing, as in epithelioma, but resemble more that of a simple chronic ulcer. The ulceration has a strong tendency to heal, as soon as the indurated tissue, deficient in blood supply, has disappeared.

These characters distinguish the growth from rodent ulcer and

ordinary epithelioma. It more resembles cheloid, but differs from that form of malignant disease in its mode of origin, viz., by originating from separate individual nodules, which gradually increase in size while others appear around, and not depending for its origin, as in cheloid, from some pre-existing cicatrix. The superficial character of the growth remaining, limited to the skin alone, is also characteristic

It may commence as a primary affection of the breast, as in this case, or be secondary to extirpation for previous malignant disease.

The microscopic characters of the growth [a section was here shewn] shew that it commences in the corium, by out-growths of the cells from the deeper layers of the rete-malpighiœ. These cells multiply and extend by endogenous formation between the fibrous bundles of the corium, exciting it to more active growth. These cells are large round or hexagonal, ultimately becoming spindle-shaped, and developing into fibrous tissue. Their multiplication is slow, so that no columns or cell nests are formed, and many may be seen gradually elongating, and becoming spindle-shaped, and forming fibrous tissue, which, as it develops, undergoes great contraction. Consequently, the ulceration is not due to degeneration of cell nests as in epithelioma, but to gangrene of the fully-formed fibrous tissue, from constricting of the blood vessels in the contracting fibrous tissue. The blood vessels are few in number, run between the bundles of fibrous tissue, and are not surrounded by columns of cells as in most malignant growths. These characters distinguish the growth from ordinary epithelioma, and account for the small tendency it has to spread and infect other organs.

The microscopic section is taken from a small isolated nodule in the skin at the margin of the growth. It was about the size of a hazel nut, and had no connection with the subcutaneous tissues below.

In the microscopic section the nuclei of the cells stand out deeply stained with picro-carmine, and the outlines of the bodies of the cells can be made out by careful focussing. They are seen to be for the most part of a round or hexagonal shape, but many may be seen gradually elongating, and others quite spindle shaped, and applied to the bundles of fibrous tissue.

SQUARE PRISMS AND A MODIFIED PRISM HOLDER, WITH OTHER APPLIANCES FOR DETERMINING THE RELATIVE STRENGTHS OF THE OCULAR MUSCLES.

By Dr. ARCHIBALD PERCIVAL.

Dr. Archibald Percival stated that he had often traced certain distressing symptoms to a want of balance between the extrinsic ocular muscles, which induces in the eye a tendency to assume a a faulty direction. Owing, however, to the desire for binocular vision, the eye maintains its normal position by a special exertion of the affected muscle, but at the expense of an increasing muscular fatigue, which reveals itself by symptoms of headache and giddiness, etc. In such cases there is neither diplopia nor strabismus, and, in order to render these latent conditions manifest, it is necessary to prevent the possibility of binocular vision.

If a prism of 3° dev. be held before one eye edge up, and a vertical line be observed at a distance of 20 feet, vertical diplopia is induced. The eyes then assume the position of minimum tension, and any latent tendency to deviate inwards or outwards is revealed by the lateral displacement of the images. Again, any tendency to an upward or downward deviation of the eye is shewn by a corresponding vertical displacement of the images when abducting prisms are used of sufficient strength to cause homonymous diplopia.

In carrying out these lists it is of paramount importance that the base apex line of the prism should be exactly vertical or horizontal. Having pointed out the inconveniences attending the use of the ordinary circular prisms, Dr. Percival shewed some square prisms, with a frame which he had devised for obviating these defects. The frame is a light rectangular one, into which the prisms can be slipped edge or base up, or in as may be required, their shape not only secures a correct position at once but prevents any possibility of subsequent displacement. The extent of the deviation can then be determined by trial with prisms of various strengths, until one is found which will correct it. For this determination he had found the revolving prisms of bíetès very convenient, which he passed round for examination. He had been accustomed to use these square prisms in estimating the amplitude of the dissociated movements of the eyes, by guiding what power they possessed of overcoming prisms placed edge out and edge up.

He then shewed another test in which the binocular function was suspended by means of coloured glasses. On a black background was pasted a cross, formed of coloured papers, two of its limbs being blue, the other two red. The red parts alone could be

seen through red glass, but when a blue glass was placed before the eyes the blue limbs became visible, the red invisible. When the right eye was furnished with a red glass and the left eye with a blue glass the right eye could only see the red parts of the cross, and the left eye the blue parts, hence each eye assumed that position which necessitated the least possible strain. Any faulty tendency was then revealed by a relative displacement of the red and blue parts of the cross.

THE NEWCASTLE MEDICAL SOCIETY 100 YEARS AGO.

By D. EMBLETON, M.D.

The second half of the eighteenth century must have been a noteworthy time in Newcastle, for during it many important developments—charitable, medical, municipal, commercial, and others—were taking place, and, among the new institutions, the charitable and the medical were conspicuous. The Infirmary, the Lying-in Hospital, the Municipal Lunatic Asylum, and the Dispensary were founded; the Public Baths were constructed, and, following these, the Literary and Philosophical Society and the Philosophical and Medical Society were instituted. The account of this last, the subject of the present communication, is taken from authentic MSS. of the secretary, and will be found to embody, though in an imperfect manner, a view of the Society life of the Medical Profession at the time, and of the endeavours made to organize and elevate it.

A few elucidatory notes have been interspersed, and short biographical notices of the chief members of the Society, and others, have been added.

Having, through the kindness of Mrs. De Mey, come into possession of the Records of the Philosophical and Medical Society, which had for some years been in the keeping of her husband, our late worthy and lamented friend, William Francis De Mey, M.D. of the University of Groningen in Holland, who was the last Secretary of the Medical, which succeeded the Philosophical and Medical Society, it has occurred to me that it might prove interesting to some of our profession, both now and hereafter, and even of the public at large, if some account of this old society were preserved.

It is among the characteristics of the present time, and, it may be added of this city, the preservation of all that relates to the past for the information and edification of those who are to follow us, and it may be that the proceedings of this Society, after the lapse of another century, will be found very curious.

On examining the above records, I find that the minute book, No. 1, bears the date of Nov. 1, 1786, 104 years ago; fifteen years before the now unhappily disputed Union of Great Britain and Ireland, and seventy-nine after the happy Union of England and Scotland.

The following is the official list of the ordinary members of the Philosophical and Medical Society:—

ORDINARY MEMBERS (39).

John Rotheram, M.D. ... .Mort., Mar. 18, 1787. 1st President.
John Hall, M.D.....Resigned Mar. 5, 1793. V.P. Nov. 1st, 1786; P. April 4, 1787; re-elected P. Nov. 2, 1787.
Stephen Pemberton, M.D.....Resigned Mar. 3, 1795. V.P. Nov. 2, 1787; P. Nov. 11, 1788; V.P. Nov. 4, 1794.

John Clark, M.D.....Resigned April 2, 1793. V.P. April 4, 1787; P. Nov. 3, 1789.
J. M. Logan, M.D.....Mort.
Jas. Fenwick, M.D. .....Resigned Nov. 2, 1790.
Mr. Leighton ... .Resigned Dec. 3, 1799. V.P. Nov. 1, 1786, and Nov. 3, 1789; P. Nov. 6, 1792; V.P. Nov. 4, 1794, Nov. 1, 1796, and Nov. 6, 1798.
Mr. Hawdon .....Mort.
Mr. Maxwell ... .Resigned Oct. 4, 1791. V.P. Nov. 2, 1787.
Mr. Abbs.....Resigned Feb. 3, 1795. V.P. Nov. 1, 1786.
Mr. Ingham ..... Resigned Dec. 5, 1797. V.P. Nov. 11, 1788, Nov. 3, 1789, and Nov. 2, 1790; P. Nov. 1, 1791; V.P. Nov. 1, 1796.
Mr. Anderson..... ....V.P. Nov. 1, 1781, Nov. 2, 1790, Nov. 6, 1792, Nov. 3, 1795, and Nov. 1, 1796; P. Nov. 6, 1798.
Mr. Mewburn..... ... .Resigned Sept. 3, 1793.
Mr. Horn..... .....V.P. Nov. 11, 1788, Nov. 2, 1790, 1791, 1792, 1793, 1797, 1798; P. 1796.
Mr. Humble .....Resigned 1789.
Mr. Powell .....
Mr. Keenlyside.....V.P. 1793 and 1795; P. 1797. Resigned Dec. 1799; died Jan. 4, 1804.
Mr. Brumwell.....P. 1799.
Mr. Grieve .....Resigned.
Mr. Welsh.....Withdrawn, not eligible as not living in town.
Mr. Rayne .....Resigned Dec. 6, 1786.
Mr. Leighton, Jun. .....Sec. and Treasurer from beginning till the dissolution.
Henry Moorhouse, M.D. .....Mort.; V.P. 1788 and 1791; P. 1790.
Mr. Edward Pringle... .....V.P. 1791 and 1792. Resigned Dec. 6, 1796; died in 1797.
A. Young, M.D. .....Elected Mar. 4, 1788. V.P. 1788; expelled Nov. 4, 1790.
George Milne, M.D. .....Elected July 1, 1788. V.P. Nov., 1789.
Mr. Stout .....Elected July 1, 1788. Withdrawn as not living in the town, Feb. 2, 1790.
Mr. Fife ....Elected Nov. 1, 1791. V.P. Nov. 5, 1799.
Mr. Surgeon .....Elected Nov. 1, 1791. Expelled July 5, 1796.
Mr. Matthias Hawdon.....Elected Nov. 6, 1791. Expelled July 5, 1796.
John Ramsay, M.D. .....Elected Feb. 7, 1792. V.P. May 5, 1795, and Nov. 7, 1797; P. Nov. 4, 1793.
James Wood, M.D. .....Elected April 3, 1792. V.P. Nov. 4, 1793, and Nov. 5, 1799; P. Nov. 4, 1794. Resigned.
Thomas Trotter, M.D. .....Elected Nov. 6, 1792. Died 1822.
Mr. Murray..... .....Elected Nov. 6, 1792. V.P. Nov. 6, 1798.
Mr Bowes Fenwick.....Elected Nov. 7, 1793. Expelled July 5, 1796.
Robt. Steavenson, M.D. .....Elected Sept. 3, 1793. V.P. Nov. 4, 1794; P. Nov. 3, 1795.
Mr. Fogo.....Elected Nov. 4, 1794. V.P. Nov. 7, 1797.
†Mr. Elliot.....Elected Oct. 6, 1795.
†Mr. Kentish .....Elected May 2, 1797. V.P. Nov. 5, 1799. Resigned the Medical Society 1803.

CORRESPONDING MEMBERS (7).

Doctor Pearson, Carlisle.....Elected Ordin. Mem. Sept. 4, 1792; Corresp. Mem., Feb. 5, 1793. Re-elected Ordin. Mem. May 4, 1794.
Doctor Trotter, Royal Navy .....Elected Corresp. Mem. Mar. 5, 1793.

Mr. Glenton, West Auckland.....	Elected	Corresp. Mem.	Mar. 5, 1793.
Mr. Greenhow, North Shields....	Ditto	ditto	Nov. 4, 1794.
Mr. John Cole, Royal Navy	Ditto	ditto	Nov. 4, 1794.
Mr. Watson, North Shields.....	Ditto	ditto	Oct. 4, 1796.
Mr. Whitfield Burnett, North Shields ...	Ditto	ditto	Sept. 3, 1799.

From beginning of the list to name, T Leighton, Jun., Physicians, 6 ; General Practitioners, 16 ; to end of list, Physicians, 13 ; General Practitioners, 32.

This list itself is given exactly as it stands in the first Minute Book. There are 37 names of Ordinary Members, and 6 of Corresponding Members. To these I have added the name of 1 of the latter and 2 of the former class, making 39 Ordinary and 7 Corresponding Members. These occur in the Minutes at the dates given, but had not been entered on the list by the otherwise accurate Secretary—making a total of 48 members.

The list had evidently been lengthened from time to time as new members were elected. The deaths, resignations, withdrawals, and expulsions, and their dates, have now been marked on the list, as also the dates of elections to different offices borne by members, all culled from the Minutes.

It seems pretty certain that the original list extended no farther than the name of Mr. Leighton, Jun., who at the first meeting of the Society was elected Secretary and Treasurer, which offices he held till the dissolution, not only of this Society, but of its successor, and that all the names following his were afterwards added.

It seems curious that 104 years ago in Newcastle, a town having at that time, according to Hutton, a population of not more than 30,000, there should have been, besides Barber Surgeons and other practitioners, a Medical Society so numerous. Doubtless there were medical men who, from various motives, had not joined the Society—as, for example, Dr. Brown and Mr. Lambert—but for want of a knowledge of these it is impossible to state the actual number of medical practitioners at the time of the founding of the Society. When this was accomplished, the number probably rapidly increased. Supposing the total number of medical men to have been 55, this would allow 540 of the population to each; but considering that the great majority of the people were poor, we must conclude that the profession of medicine was not a very lucrative one, except, perhaps, to one or two of the head physicians and surgeons. All who wrote themselves M.D. in those days were the physicians, and most likely graduates of the University of Edinburgh: the surgeons had no qualification except that of having served a five or seven years' apprenticeship to a surgeon in practice.

I distinctly recollect that, so near the present time as the year 1826 or 1827, the contemptuous indignation displayed by Mr. Leighton—then about the age of eighty years, with whom I was serving an apprenticeship—when an emissary from the College of Surgeons of England called, and wished to have an inspection of

his qualification. The emissary did not tarry long on the premises, but was informed that he, the old gentleman, had been in practice before the College of Surgeons was founded, and he could not recognise their authority. When there was no central or overruling body, you may imagine the somewhat chaotic state of the medical profession in the last century.

Since compiling the greater part of this history, I have fortunately met with the Rev. J. R. Boyle's excellent reprint of Whitehead's Directory of Newcastle, the first published, that of the year 1778. In this are lists of the Physicians and of the Surgeons then resident in Newcastle, that is eight years before the establishment of the Philosophical and Medical Society. It is to be believed that the names of all the acknowledged medical men of that day, with their residences, are to be found in these lists. Those which I have marked with a cross are those of gentlemen afterwards forming part of the above Society.

The names in Whitehead's Directory are as follows, and are conveniently introduced here after those of the Philosophical and Medical Society :—

PHYSICIANS, page 36.

Brown, Dr.	Pilgrim Street	*h.*
†Clark, Dr.	Ditto	*m.*
†Hall, Dr.	Ditto	*h.*
†Pemberton, Dr.	Westgate Street	*f.*
†Rotheram, Dr.	Ditto.	

SURGEONS, page 49.

†Abbs, Rich. Bryan	Pudding Chare	*m.*
†Anderson, J.	Pilgrim Street	*m.*
Bayles, Nath.	South side St. Nicholas Ch-yd.	
Cameron	Sandgate	*m.*
Carr, J.	Groat Market	*m.*
Gibson, Hen.	Westgate Street	*f.*
†Hawdon, Tho.	Pilgrim Street	*f.*
Isaacson, Hen.	Near White Cross.	
Johnson, Tho.	Old Pullen Market.	
†Keenlyside, Wm.	Pilgrim Street	*f.*
†Lambert and Ingham	Bigge Market	*m.*
†Leighton, J.	Queen Street.	
†Maxwell, Wm.	West end of Quayside.	
†Mewburn	Pilgrim Street	*f.*
Smith, Wm.	Side	*h.*

m, means middle or near the middle.
f, foot of.
h, head of.

P.S.—Lambert and Ingham—the latter was a member, the former was not a member of the Philosophical and Medical Society.

In all—Physicians, 5 ; General Practitioners, 16. Total, 21.

From the above lists we find that in 1778 there were altogether in Newcastle five Physicians and sixteen Surgeons, and that eight years afterwards there were six Physicians and sixteen Surgeons formed into a Medical Society, and, in addition, one Physician and an unknown number of practitioners not in that Society.

At the end of twenty years, that is in 1806, the number of Physicians was twelve, but the Surgeons had risen in number to thirty-four in the list of the Society, with a good many out of its pale.

The names of all these Gentlemen of the Faculty have vanished into *die evigkeit*, but I can recollect a few, as Maxwell, Leighton, jun., Fife, Surgeon, Ramsay, and thus I may be said to be one of the two remaining links, the other being my friend Mr. Sang, my senior, between the men of the last century and those of the present time. Portraits of Ingham, Ramsay, and Leighton are in the Infirmary.

The minutes of the meetings of the Philosophical and Medical Society commence as follows :—

Newcastle, November 1st, 1786.

Doctor Rotheram in the Chair.

At a meeting of the Gentlemen of the Faculty, held this day, the following Resolutions were entered into :—

1st. That this Meeting do constitute itself into a Philosophical and Medical Society.

2nd. That the first Meeting shall be on the first Wednesday in December, at six o'clock of the Evening, to consider every proper regulation.

3rd. That Doctor Rotheram be elected President for the year to come.

4th. That Doctor Hall, Mr. Abbs, and Mr. Leighton, Senr., be Vice-Presidents, and Thomas Leighton, Secretary and Treasurer.

5th. That Doctor Hall, Mr. Abbs, and Mr. Hawdon be requested to survey the Public Library in St. Nicholas' Churchyard, and report to the Society at their next Meeting their opinion how far it will be useful for the purposes intended.

NOTE.—This library was that bequeathed to the town by Dr. Thomlinson, vicar of Whickham, in 1748, and was placed in the classic building standing against the south side of St. Nicholas' Church. The books were removed to the Free Library in New Bridge Street in the years 1884 and 1885.

6th. That Doctor Brown*, having sent a letter to this Society (which letter was unanimously ordered to be burnt), resolved that He in future shall never be admitted a Member of this Society in any line whatever.

7th. That every Member who does not attend the next Meeting be fined five shillings.

[It may fairly be surmised that Dr. Brown was a man averse to changes and innovations, and that his letter was of a satirical

* Dr. Charles Brown, physician to the Infirmary from 1761 to 1781, and to the Dispensary from its institution in 1777. Died in 1788. Infirmary Report 1760. Vacat. 1787.

character, and, therefore, highly irritating and offensive to the sensitive feelings of the members of the newly-constituted Society, and was worthy of the fate which befell it.]

The next Meeting was on the 6th of December, 1786, Dr. Rotheram in the chair. At the Meeting held this day the Society was favoured with a learned address from the President, a copy of which was delivered to the Secretary (which he has carefully preserved), and which is in my possession.

A Committee, consisting of Drs. Pemberton, Clark, Fenwick, Logan, and Mr. Horn, was appointed for the purpose of forming a Code of Laws for regulating the Society, and the following Laws were proposed and unanimously agreed to :—

1st. That all Elections be made by ballot, at a General Meeting of the Society, when nine Members, or more, are present, and that no gentleman proposed shall be considered as a Member who shall not have two-thirds of the votes in his favor.

2nd. That any Person desirous of being balloted for, must be proposed by a Member the Meeting previous to that on which the balloting is to take place.

3rd. That any Member shall have a right, with the approbation of the President, to introduce a friend to any Meeting of the Society, except when there shall be an Election.

4th. That the Society do meet the first Wednesday in every Month, at Six o'clock in the Evening, and that the Business of the Meeting shall begin at half-past six and end at ten.

5th. That all Papers offered to the Society be announced to the President, and he appoint the time for reading them before the Society by regular succession.

6th. That if the reading of any Paper shall take up more than half-an-hour, the remainder shall be postponed till another Meeting, unless the Society shall desire to hear it all at that time.

7th. That every Paper read to the Society shall be delivered to the President, and kept for the use and disposal of the Society.

The Secretary received a Card from Mr. Rayne, desiring that his name might be scratched out of the List, as he wished to be no longer considered a Member of the Society, which was accordingly complied with (no reason assigned).

The Society (after the burning of Dr. Brown's offensive letter, and the unanimous passing of the laws, and the scratching out of Mr. Rayne's name), held "the next meeting on the 7th Febr., 1787, Doctor Hall in the chair, when

The Committee appointed to survey the Library in St. Nicholas' Church Yard, gave in their report that it was convenient and proper for the purpose intended: and they would pursue their application to the Corporation as soon as they could.

(The object of this survey will appear in the following resolution :—"Resolved, that a Committee be appointed for the purpose

of drawing up such outlines as may be necessary for promoting a general library, and that the same Committee be empowered to draw up and present to the Common Council of Newcastle a Petition for the use of the room in St. Nicholas' Church Yard for the purpose of a Library, and to hold the Meetings of the Society in."

That Doctors Hall, Pemberton, Clark, Fenwick, Messrs. Anderson, Hawdon, Horn, and the Secretary, form a Committee for the above purposes.

That the Committee be empowered to call upon each Member of the Society for any sum not exceeding One Guinea, for the purpose of promoting the intentions of the Society.

The Secretary received a letter from Mr. Grieve, desiring him to intimate to the Society his intention of withdrawing himself from their meetings.

At the meeting March 7, 1787, Mr. Leighton, Sen., in the chair, the following Proposals, drawn up by the Committee, for the Establishment of a General Library, were read and agreed to:—

"A number of gentlemen, sensible of the Advantages that will result from the Establishment of a General Library in this Town, have entered into a Subscription for that purpose, and wishing for the Approbation and Concurrence of others, take this Method of communicating the outlines of their Plan to the Public.

1st.—The Library shall consist of the most approved Authors in every Branch of Philosophy: in the Belles Lettres, History, Theology, Law and Medicine, Agriculture and Commerce; but Romances, Novels, and the like shall be excluded.

2nd.—The Property of the Library shall be in the Subscribers, their Executors, Administrators, and Assigns, and Provisions shall be made for this purpose.

3rd.—The Annual Subscription for the first five years shall be two Guineas, and afterwards one Guinea.

4th.—A general Court of the Subscribers shall be holden once in three months for transacting the business of the Library.

5th.—A Committee of twelve Subscribers chosen at a general Court shall meet on the first Tuesday of every Month to order Books; and any five of them then met shall have Authority to act for the whole.

6th.—The Number of Subscribers shall be limited to a hundred, and the first general Court shall be holden as soon as Forty have subscribed.

7th.—Every Subscriber may have Books out of the Library under such regulations as shall be agreed on.

Resolved,—That three hundred Copies of the above proposals be printed and distributed by the Members of this Society among their Acquaintance, and that Subscription Papers be put up at the Assembly Rooms and Katy's and Bella's Coffee-houses." *

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* See pages 21, 22, and 23 relative to these Coffee Houses.

Mr. Horn read to the Society an ingenious Paper on the Locked Jaw succeeding Amputation, which was ordered to be transcribed.

The Committee have not been able to procure a satisfactory answer from the Corporation, and are therefore requested to continue their application.

Katy's and Bella's Coffee Houses —It would be interesting, at the present day, if these, the resort of the elite of the town, could be brought to light once more, and made to exhibit to us the personal appearances and habits, and enable us to listen to the conversations of their frequenters, municipal, mercantile, and medical, and others, gossips of the day.

Of Bella's, I can find no record, either in Sykes' Local Records, or in Richardson's Table Book. My late obliging friend, Mr. James Clephan, wrote to me of Bella's—"I can lay my hand on no trace of it," but doubtless it was situated in that part of the town where merchants most did congregate, that is on the Side, or Sandhill, or Quayside; as, however, even its memory has gone away into oblivion, we must conclude that it was of minor repute than Katy's.

With regard to this last, there is in Richardson's Table Book, Historical, Vol. ii., under date January 7th, 1767, the following notice of its occupier.

"Died at Newcastle, Mrs. Katy Jefferson, Spinster, aged 70 years, who kept Katy's Coffee House there for the last fifty years of her life."

"The great resort of company to her house did not prevent her exercising her industry in other respects, particularly in spinning, in which she excelled; one web of 19 yards she brought to such perfection that she refused to take half a guinea a yard for it, which was offered her by a lady; but it is to be observed that she worked at this web no less than 20 years." (Gillespie's Collection).

In Vol. iii. of the same Book, p. 361, is a Wood Cut of "the Entrance to the Side from the Sandhill, Newcastle, with Katy's Coffee House, the Lort Burn, &c., 1640 (Designed from views, plans existent, and lately existent remains, &c." Katy's is erroneously supposed to be the large house on the right hand.

Mrs. Katy Jefferson, spinster, must have finished her web and life together full nineteen years before the Philosophical and Medical Society had their papers put up in the Coffee House, still at that time passing under her name.

Syke's notice, under the same date, is—"Died, after a few hours illness, Mrs. Catherine Jefferson, who kept the well-known Coffee House, called Katy's Coffee House, on the Sandhill, Newcastle, for upwards of fifty years." The house was on the Sandhill, and its exact situation there we discover from Whitehead's Directory of 1778, the first published in Newcastle, and for a reprint of which we are indebted to the Rev. J. R. Boyle. At page 16 of this

reprint (No. 30, small paper), is the following, under the heading of Coffee and Punch Houses :—

Nelly's—opposite Water Gate, Sandhill (at west end of Quay).
Katey's—east side of Sandhill, m. (*i.e.*, middle, or about the middle).
Turner's—north corner of Sandhill.
Walker's—north side of Sandhill.
Wharton's—Side, h. (*i.e.*, head of).

April 4th, 1787.—At a Meeting of the Society at the Dispensary* in Low Friar Street—Mr. Leighton, Senr., in the Chair—Dr. Pemberton made a motion, that Dr. Hall be elected President for the remainder of the year, in the room of our late worthy President deceased, which was seconded by Mr. Horn, and unanimously carried.

Mr. Abbs also made a motion, that Doctor Clark be elected Vice-President, in the the room of Doctor Hall, which was seconded by Doctor Pemberton, and unanimously carried.

Resolved that the three following Rules be added to those already entered :—

8th. That each Member shall enter the Society in silence and without ceremony.

9th. That each Member who does not enter the Society's room before half-an-hour past six o'clock be fined one shilling, and if not before seven to pay half-a-crown.

10th. That the Fines remain in the Treasurer's Hands till the end of the year, to be disposed of agreeable to the order of the Society.

Mr. Powell proposed Doctor Moorhouse, and Mr. Keenlyside proposed Mr. Edward Pringle, to be balloted for at the next meeting.

The Secretary is desired to transmit to the neighbouring gentlemen Copies of the proposals for the Establishment of a general Library.

May 2nd.—Mr. Abbs in the Chair—Doctor Moorhouse and Mr. Pringle unanimously elected.

Doctor Fenwick enters it as a question to be considered, whether (when a gentleman is elected a Member of the Society) the expression *unanimously* or *duly* elected is to be made use of?

The Gentlemen of the Committee present have received no further information respecting the application for the Room of the Library in St. Nicholas' Church-yard.

Doctor Pemberton proposes it as a Question for next Meeting, "What is the most successful method of treating the Locked Jaw?"

June 6th.—Doctor Hall in the Chair. The question proposed at last meeting by Doctor Fenwick was decided, and "*duly elected*" ordered to be used.

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* It is figured in Mackenzie's History of Newcastle, and is now and for some years past a Beerhouse.

Dr. Hall presented Mr. Fawcitt's opinion on the case respecting the Library in St. Nicholas' Church-yard, which was read, and the Library Committee was desired to meet next Monday at 5 o'clock, and consider of the next steps to be taken.*

The Question, proposed by Dr. Pemberton, as to the treatment of Locked Jaw, was discussed, and so many remedies were enumerated, each of which had been attended with various success, that no one general Plan could be recommended.

July 4.—Doctor Clark in the Chair.

Members are desired to produce next meeting such Essays on any subject as they shall think worthy of communication.

Aug. 1st.—Mr. Leighton, Senr., in the Chair.

Doctor Clark read some observations and experiments relating to the Small Pox, after which the Society adjourned.

Sept. 5.—Doctor Clark in the Chair.

The debts of the Library to be called in.

Dr. Pemberton related the case of Robert Dougle, who suffered a violent pain, both in the Sinciput and Occiput, owing to a severe blow on the latter, which, after resisting various means, was at last relieved by mercurial friction, though not entirely cured. Mr. Mewburn promised the sequel of the case.

Oct. 10th.—Mr. Leighton, Senr., in the Chair.

This was a Meeting adjourned from the 3rd Oct., on account of a Quarterly Meeting of the Governors of the Dispensary having been held on that day, the Society's Meetings being held at the Dispensary.

Dougle's case was continued by Mr. Mewburn.

Mr. Horn read a case of Encysted Dropsy of the Abdomen, and another of Bubonocele, complicated with Hydrocele of the Spermatic Cord, for which he received the thanks of the Society.

Nov. 2nd.—Doctor Hall in the Chair. The Annual Meeting, at which it was proposed, and unanimously agreed to, that Doctor Hall should be elected President for the ensuing year, also that Dr. Pemberton, Mr. Maxwell, and Mr. Anderson be elected Vice-Presidents, and Thomas Leighton Secretary.

Dec. 5th.—Mr. Anderson in the Chair. Resolved that a full Meeting of the Members of the Society be requested at the next Monthly Meeting on special Business.

Feb. 6, 1788.—Doctor Pemberton in the Chair. Resolved that the Meetings be held in future on the first Tuesday in the Month. Mr. Humble proposes Dr. Young to be balloted for at next Meeting.

March 4.—Doctor Pemberton in the Chair. Dr. Young duly elected. Mr. Leighton, Senr., read a singular case of Angina.

* This matter appears to have been after this dropped, as no further notice of it occurs. The Committee evidently could not get "the Canny Corporation" to accede to the reasonable proposals of the Society.

Mr. Horn read a case of Phimosis and purulent Discharge from the Urethra in a Child under Symptoms of Dentition.

April 1st.—Doctor Clark in the Chair, who read some Cases of Inoculated Patients, with observations on the Difference of the periods at which the infection takes place; and also proposed that the Society should publish a Table, exhibiting a comparative view of the Names adopted in the last Edition of the *Pharmacopeia Collegii Regalis Londinensis*, and those used in former Editions; and that copies should be distributed amongst the Gentlemen of the Faculty in this Town and neighbourhood, to make the change more familiar, and to prevent confusion and mistakes; which proposal was agreed to. The President proposed to deliver at the next ordinary Meeting some remarks on a new introduced method of treating Women after Delivery.

April 10th.—At an extraordinary Meeting it was resolved that 500 Copies of the Table of the changed Names according to the new Pharmacopeia should be printed and bound up in a form for the pocket, with an advertisement explaining the intention of the Society in publishing it, and that these Copies be delivered to the Secretary, to be distributed by him to such Gentlemen of the Profession as choose to apply for them.*

May 6.—Doctor Pemberton in the chair. Doctor Young read a paper on Epilepsy.

June 3rd.—Doctor Pemberton in the chair: read a paper on Pertussis. The Secretary proposes Dr. Milne, and Dr. Pemberton Mr. Stout. Dr. Clark moves that the thanks of the Society be delivered to him for his Paper, and that it be the subject of discussion at the next meeting; and also that every Paper read without being previously announced be discussed at the following Meeting. Mr. Horn seconds this. Dr. Young will read at the next meeting some Experiments he made to determine if the matter of Lues and Gonorrhœa be the same, with observations on Mr. Hunter's Treatise on the Venereal Disease.

July 1st.—Same Chairman. Dr. Milne and Mr. Stout duly elected Members. The following regulation was proposed and agreed to:—"That every Member of the Society having come to their Meeting at the proper time shall be subject to the established Fines if he shall depart before seven o'clock without leave from the President.

Doctor Young read some experiments he had made with matter from Gonorrhœa and Chancre.

Aug. 5th.—Same Chairman. Doctor Young made some observations on Mr. Hunter's Treatise on the Venereal Disease.

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* This resolution clearly shows that the Society had the welfare of the profession at heart. There is, unfortunately, no record of any application having been made for copies of the Table, nor has the Table survived.

Sept. 2.—Dr. Hall in the chair. Doctor Young continued his observations, which are proposed to be the subject of Discussion at next meeting.

Oct. 7.—The same. Dr. Young concluded his observations.

Nov. 4.—Doctor Pemberton in the Chair. It was unanimously agreed that the Anniversary Dinner of the Society shall be held at Turner's on Tuesday next, the 11th inst., at 3 o'clock, and that the Members be desired to attend half an hour before Dinner to chuse the Officers for the ensuing year. Any Gentleman may introduce a medical Friend to Dinner. Doctor Young advanced an Opinion that the matter that produces Gonorrhœa and that which produces Lues are different, and supported it by many ingenious Experiments.

Nov. 11th.—Doctor Hall in the Chair. This day being appointed to keep the Anniversary of the Institution of the Society, and for the Election of Officers for the ensuing Year, being the Third,* the Members met at Turner's,† and the following Gentlemen were elected :—Doctor Pemberton, President ; Drs. Moorhouse

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* This is the first mention of the anniversary dinner in the Minutes.

† It was for a time rather difficult to determine where the house called Turner's was situated ; however, Mr. Dodd, the late excellent Librarian at the Royal Infirmary, once told me that he believed the Queen's Head Inn, in Pilgrim Street, to be the house.

In corroboration of this belief we find, in Whitehead's Directory of Newcastle, 1788, at page 15, " Coalition Light Coach sets out from Mr. Turner's, Queen's Head Inn, Pilgrim Street, every morning at three o'clock."

We do not know that Turner's Coffee House, on the Sandhill, was kept by the same Turner as mine host of the Queen's Head ; but, whether this be so or not, we may be persuaded that the gentlemen of the faculty would prefer to hold their anniversary meeting at an important inn and posting establishment rather than at a coffee and punch-house.

From the Minutes of April, 1806, it appears that a general meeting of the medical faculty of the town was convened for the 20th of April, at the Shakespere Tavern, of which change no reason is given in the Minutes.

The Shakespeare Tavern of that time was located next to the Post Office and opposite the Theatre Royal. Between the Tavern and the Post Office on the east side and the Theatre on the west was a small square, open towards Dean Street on the south and blocked by the Butcher Market on the north. At present Grey Street extends from Mosley Street over all these parts, curving up to the right.

The anniversaries of the Society were resumed at Turner's.

The Methuen Treaty, between England and Portugal, was concluded in the year 1782, and allowed of the admission of Port Wine into this country. Previous to that date, Claret, that is Bordeaux, and Burgundy Wines were drunk at table by those who could afford them. These wines were at that time, perhaps, more carelessly made than now, but were less sophisticated than those now bearing the above names.

During the four years, between 1782 and the institution of the Philosophical and Medical Society, no doubt many a Pipe of Port had been landed on Newcastle Quay, and that the Gentlemen of the Faculty would have become fairly well acquainted with the generous qualities of that wine; and Turner's cellar no

and Young, and Messrs. Ingham and Horn, Vice-Presidents; and Thomas Leighton, Sec. and Treasurer.

On Dec. 2nd, Adjournment till February 3, 1789, when Doctor Pemberton being Chairman, Mr. Horn read the History of a Case communicated by Doctor Baillie, in which, on dissection, the whole of the Viscera were found inverted.

Mar. 3, 1789.—Same Chairman. Dr. Clark read some cases of Hydrocephalus internus, in which Mercury had been given to a considerable extent without any good effect.

April 7th.—Same Chairman. Mr. Humble sends a letter of resignation. Mr. Leighton, Senr., read a case of Hydrocephalus internus, in which the Disease terminated fatally in a few days; also a case of large Scirrous Tumour found in one Hemisphere of the Brain, and attended with some peculiar circumstances.

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doubt being well stock with it, the Members of the Society at their Anniversary Dinners would, after the fashion of the day, thoroughly enjoy themselves.

Dining together at stated times, and on great occasions, has for many centuries been the habit, not only of Medical Societies and Barber-Surgeons, but of most incorporated bodies, and of other bodies unincorporated.

The Incorporated Company of Barber-Surgeons, together with Wax and Tallow-Chandlers, dating from 1442, had an annual dinner, a habit which is continued to the present day. In 1478, on the 28th of October, and in a year of the Plague, they gave a dinner to 124 persons, and the cost thereof was 7s. 6d., or slightly less than three farthings a head—a marvellous achievement even in those dimly distant days.

The following was the Menu on that occasion:—

	s.	d.
2 Loins of Veal	0	8
2 Loins of Mutton	0	8
1 Loin of Beef	0	4
2 Legs of Mutton	0	2½
1 Pig	0	6
1 Capon	0	6
1 Rabbit	0	2
A dozen of Pigeons	0	7
1 Goose	0	4
1 Gross of Eggs	0	8½
2 Gallons of Wine	1	4
3 Gallons of Ale	1	6
	7	6

All the great Medical Corporations of the United Kingdom and the staffs of all the London and other hospitals have their annual dinners.

The immortal Harvey, as is well known to the medical profession, instituted by his will, in 1657, an annual dinner of the Fellows of the Royal College of Physicians of London, "To the end friendship between the members of the said College may be better continued and maintained." That dinner has been kept up through 234 years to the present time. *Esto perpetuum!*

In France, to go no farther abroad, the custom of having a professional festivity on important occasions is of ancient date. The official acts and ceremonies of the world-renowned Faculty of Medicine of Paris, which had been perpetuated for six hundred years, were always followed by a banquet given by the Dean of the Faculty, and it was distinguished by good cheer, laughter, and much enjoyment, as will sufficiently appear in the passage subjoined, taken

May 5th.—Same Chairman. The Secretary presented a Card from the Rev. Mr. Turner, requesting a sight of Doctor Rotheram's introductory paper read at the institution of the Society, which request was complied with, on condition that Mr. Turner does uot take a copy of it, nor suffer any other person to read it. Doctor Young apologises for not having his paper to read.

On July 7th, the President read a Case of Cataracts in both Eyes, in which different preparations of Mercury had been exhibited, without producing any effect, either on the disease or on the Constitution.

Doctor Hall read a Case of a large Collection of Matter in the Thigh, by the opening and discharge of which the Patient sank and died very suddenly; also, some strictures on the present practice of treating lying-in-women.

Aug. 4th.—Doctor Pemberton, Chairman. Doctor Young read two cases, shewing the good effects of Emetics and full Diet in Phthisis Pulmonalis.

Sept. 1.—Doctor P. in the Chair. Doctor Clark read a Pamphlet, wrote by Doctor Percival, on the Rabies Canina, and sent by the author to him.

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from an opuscule of Professor Flourens, entitled "Histoire de la découverte de la circulation du Sang."—*Paris, J. B. Baillière, 1851, p. 194 et. seq.*

"Gui-Patin nous dit tout sur sa Faculté, et ce qui est sérieux, et ce qui ne l'est pas. Je parlais tout à l'heure des acts et des cérémonies de la Faculté. Chacun de ces événements était suivi d'un *festin* : 'Samedi 20 de mars, nous avons reçu six bacheliers. . . . . Le même jour, on a fait un festin aux écoles. . . . .' Et voilà Gui-Patin qui nous énumère tous les invités, marquant bien le rang de chacun ; les doyen et censeurs, les anciens doyens, les quatre examinateurs, les cinq électeurs, les quatre anciens des écoles, les professeurs ordinaires, quelques amis du doyen, qui sont des forts de l'école, et les plus considérables de la Faculté. . . . Je n'ai jamais vu telle réjouissance de part et d'antre ; on n'y a parlé que de rire et de bonne chère. . . ."

Il est élu doyen le 4 Novembre, 1650, et le 1er Décembre il *fait son festin*. "Etant revenu au logis ce matin, j'y ai trouvé votre lettre, la quelle m'a accru la joie que j'avais eue hier que je fis mon festin, à canse de mon décanat. Trente-six de mes collègues firent grande chère ; je ne vis jamais tant rire et tant boire pour des gens sérieux, et même de nos anciens ; c'était du meilleur vin vieux de Bourgogne que j'avais destiné pour ce festin. Je les traitai dans ma chambre, où, par-dessus la tapisserie, se voyaient curieusement les tableaux d'Erasme, des deux Scaliger, père et fils, Casaubon, Muret, Montaigne, Charron, Grotius, Heinsius, Saumaise, Fernel, de Thou, et notre bon ami Gabriel Nandé, bibliothècaire du Mazarin, qui n'est que sa qualité externe, car, pour les internes, il les a antant qu'on peut les avoir ; il est très savant, bon, sage, déniaisé et guéri de la sottise du siècle, fidèle et constant ami depuis trente-trois ans. Il y avait encore trois autres portraits d'excellents hommes, de feu M. de Sales, évêque de Genève, de Justus Lipsius, et enfin de François Rabelais. . . . Que dites-vous de cet assemblage ? Mes invités n'etaient ils pas en bonne compagnie ? . . . ."

The Philosophical and Medical Society of Newcastle-upon-Tyne, therefore, in instituting an anniversary dinner, was duly following in the time-honoured footsteps of more important and dignified medical bodies.

Gui-Patin, born 3rd August, 1661, and died August 30th, 1672.

Oct. 6th.—Doctor P. in the Chair. Doctor Smith, proposing himself to be elected a Member, is referred to the Rules (his name does not recur in the Minutes).

A letter was presented from the Governors of the Dispensary, enclosing a plan for the Institution of a Department for the recovery of Persons apparently dead by drowning, &c., and requesting the Assistance of the Society in establishing the necessary means to be employed for that purpose.

Resolved: That the Society do take the above Plan into Consideration, and meet on this day fortnight, to draw up a set of Rules, and to return an answer to the Governors of the Dispensary.

Also, that a set of Savigny's Instruments, used in suspended animation, be ordered immediately. The next ordinary Meeting, being the Anniversary, resolved to hold annual dinner, as usual, at Turner's.

Nov. 3, 1789.—At the Anniversary Meeting, held this day, the following Gentlemən were elected Officers for the ensuing year:—Doctor Clark, President; Doctor Milne, Mr. Leighton, sen., and Mr. Ingham, Vice-Presidents; and Thomas Leighton, Secretary and Treasurer.

Nov. 10th.—An Extraordinary Meeting this day; a Plan of the Methods to be employed in the Recovery of Persons apparently dead from drowning, and other causes of Suffocation, or apparent Death, was read and approved of.

Resolved: That a sufficient number of Copies of the same be printed, and sent to every Member of the Society, and that the Members be requested to consider the same, and send in writing any objections, alterations, or improvements that may occur to them at the next Meeting of the Society.

Dec. 1st.—Doctor Clark in Chair. The above plan was again considered, and some alterations made; and on the 9th finally concluded. Adjournment to Febr. 2, 1790.

Feb. 2, 1790.—Doctor Clark in chair. A letter read from Mr. Logan Henderson, proposing an addition of some Phials charged with the Electric Fluid to the Apparatus for the Recovery of Persons apparently dead by drowning and other causes of suffocation, with an offer to present a Few of them to the Society.

Letter of thanks to Mr. Henderson; and Doctor Pemberton, Messrs. Ingham, Horn, and the Secretary will wait upon him if agreeable to him.

Messrs. Welsh and Stout not being resident in Town are not considered as Members of the Society.

Mr. Mewburn makes a Motion, that any Gentleman who absents himself for three Meetings successively, be requested by the Secretary to pay up his Fines. Mr. Anderson seconds the Motion.

Mr. Ingham makes a Motion, that a Lottery Ticket be purchased for the benefit of the Society, and registered in the name of the

Secretary. Mr. Keenlyside seconds the Motion, which was agreed to. (The Lottery Ticket not being again noticed, it is fair to conclude that the Society lost the price of it.)

March 2nd.—Doctor Clark in the chair. The Committee appointed to meet Mr. Henderson saw the Instruments proposed by him, and made some experiments with them; and they think that Phials of a larger size, constructed after the same manner, might have the desired effects. Committee to wait on Mr. Henderson again, with any other gentleman who wishes it, in order to have a set of Instruments constructed in such a manner as they think will be most useful.

April 3.—Same Chairman. It was resolved, that when any Member of the Society is confined by sickness, he shall be exempted from the ordinary Fine on proper notice being given.

May 4.—Doctor Clark in the chair. Doctor Pemberton makes a Motion, that from this Meeting till the Anniversary the periodical Meetings of the Society shall be held every second month. Mr. Mewburn seconds, and the Motion carried. Doctor Pemberton also makes a Motion, that two Members be appointed at every Meeting, in rotation, to deliver at the next ordinary Meeting a Paper or Essay on any subject they may think proper, and, in case any Gentleman is prevented from attending, he shall send his Paper. Mr. Horn seconds, and motion accordingly carried. Drs. Hall and Pemberton are appointed to give in Essays at next Meeting. Adjournment to first Tuesday in July.

July 7th.—Mr. Leighton in Chair. Doctor Pemberton read a case of Hysteria, attended with a Hæmorrhage from the stomach, in which the Flowers of the Cardamine had the effect of curing the Hysteria (a piece of information which has been lost. The plant grows plentifully in the furrows and ditches of the town moor.) Doctor Hall being absent, his Paper was not produced. Drs. Clark and Fenwick were appointed to give in Essays at the next Meeting on 1st Tuesday in September.

Oct. 5th.—Doctor Clark in chair. The September Meeting was adjourned till this day on account of the Governor's Hall in the new Dispensary not being finished. Doctor Hall read some Observations on Atra Bilis and on the Treatment of Mania. Doctor Clark read two Cases of Patients being attacked with the Measles whilst under the inoculated small Pox, with some observations on Mr. Hunter's opinion that the Body is incapable of receiving two diseased Actions at the same time. The Anniversary Dinner fixed for Nov. 2nd, at Turner's. Mr. Leighton, Senr., and Mr. Maxwell to give in Papers at December Meeting.

Nov. 2.—Anniversary. Mr. Ingham in the chair. Officers elected:—Doctor Moorhouse, President; Messrs. Ingham, Anderson, and Horn, V.P.'s; and Thos. Leighton, Secy. and Treasurer.

Doctor Fenwick requests by Letter that his Name be withdrawn

from the List of Members, and the Secretary is desired to scratch out Doctor Fenwick's Name from the List.

A Letter received from the Secretary of the Dispensary, with offer from the Governors of their Hall for the Society to meet in. (Thanks from the Society for the obliging offer.)

Dec. 7th.—Doctor Moorhouse in Chair. Mr. Leighton read a Case of a large Suppuration in the Shoulder, attended with some singular circumstances, and was followed with a Fracture of the Humerus by the Exertion of the Deltoid Muscle in raising the Arm.

Mr. Maxwell was absent, and did not send a Paper.

Doctor Clark made a Motion that any Member who is appointed to give in a Paper according to the regulations of the Society, and does not bring his Paper, or, in case he cannot attend, does not send it to the Secretary to be read by him, shall be fined half a guinea, excepting only that he is confined by sickness. Mr. Ingham seconded, and motion carried. Mr. Abbs and Mr. Ingham appointed to give in Papers at next meeting, which stands adjourned till the 1st Tuesday in February.

Feby. 1st, 1791.—Doctor Moorhouse in Chair. Mr. Ingham read a case of a diseased Maxilla inferior, which, after violent Inflammation and Suppuration, was entirely thrown off, and the Bone was afterwards totally regenerated. Mr. Horn made a motion that, from this time, three Gentlemen instead of two be appointed to give in Papers in rotation at every Meeting, and that they should be subject to the Fines already imposed. Mr. Leighton seconded the motion. Agreed to. Mr. Mewburn, Mr. Anderson, and Mr. Horn appointed to give in Papers at next Meeting.

March 1st, 1791.—Mr. Ingham in the Chair. Mr. Anderson read two Cases of Hydrocephalus internus, with the appearances on Dissection. Mr. Mewburn read a Case of Dislocation of the Ankle, complicated with a Fracture of the Fibula, and attended with a partial Mortification. Mr. Horn read a Case of Jaundice, cured by the use of Mercury. Messrs. Powell, Keenlyside, and Brumwell, were appointed to read Papers at next Meeting.

April 5th.--Mr. Ingham in the Chair. Mr. Powell made an Apology for not reading a Paper (for that on March 16th his house had been destroyed by fire), which was accepted. [See page 44 Biography.]

Mr. Keenlyside read a Case of a young Lady, who lost the power of Sensation of one Side suddenly, but retained the Motion with the Method of Treatment by which she was recovered. Mr. Brumwell read a Case of a Man who died suddenly from the effects of drinking a quantity of ardent Spirits, after having recovered from the Apoplectic State.

The President, Mr. Pringle, and the Secretary, appointed to read Papers at the next meeting.

May 3rd.—Doctor Moorhouse in Chair. Mr. Pringle read a Case in which Ruspini's Styptic was applied with success in a Hæmorrhage after Amputation. The President read a case of Jaundice, relieved by the Discharge of very large Gall-Stones. The Secretary's Paper deferred till next Meeting; and Doctors Young and Hall appointed also to read papers.

June 7th.—Mr. Ingham in the Chair. Secretary read two Cases of Wounds penetrating the Joint of Knee, successfully treated, with some observations. Doctor Young read a Case of Fever, in which the Bark seemed to have no effect; but Opium, Brandy, and Water, and Wort with Yeast, given with apparent good effects, and the Patient recovered.

Doctor Hall was absent, and did not send his Paper.

Mr. Ingham made a Motion that the Society make a present of a Carpet for the Governor's Hall of the Dispensary, in return for the privilege offered by the Governors to the Society of holding their Meetings in that Hall. The Motion agreed to, and the Secretary desired to provide a Carpet suitable to the Room.

Doctors Pemberton and Clark, and Mr. Leighton, appointed to read Papers.

August 2nd.—Doctor Moorhouse in Chair. Doctor Pemberton read some observations on internal Hæmorrhages, with a Case in which Alum, in the Form of Whey, was given, with good effects.

Doctor Clark read some observations on the use of Mercury in Hepatitis, with some Cases in which it was exhibited with success. Mr. Leighton read a Case of Aneurism from a Puncture of the humeral Artery, attended with some uncommon Circumstances. (There must have been Bad phlebotomy!) Messrs. Abbs, Ingham, and Maxwell, were appointed to read papers at next Meeting.

October 4th.—Doctor Moorhouse in Chair. Mr. Maxwell resigns by verbal message; the same is accepted, but the Society think proper to recommend to Members that all resignations for the future should be made by Letter. Messrs Abbs and Ingham were absent, and did not send their Papers. Resolved that the Annual Dinner be held as usual. Messrs. Anderson, Mewburn, and Horn to read Papers next.

Nov. 1st, 1791.—Doctor Moorhouse in chair. Mr. Fife was proposed by the President, and Mr. Surgeon by Doctor Young, and were duly elected. The following gentlemen elected officers for the ensuing year:—Mr. Ingham, President; Doctor Moorhouse, Messrs. Horn and Pringle, Vice-Presidents; and Thomas Leighton, Secretary and Treasurer. Messrs. Anderson, Mewburn, and Horn to read papers.

Dec. 6th.—Mr. Ingham in Chair. Mr. Matthias Hawdon, proposed by Mr. Pringle, was duly elected. Mr. Anderson read a Case of Hæmorrhage from the Intestines, which terminated fatally, with the appearances on Dissection. Mr. Mewburn read a Case of

Fracture of the Cranium, with considerable Loss of Substance of Brain, which terminated fatally. Mr. Horn two Cases in which Electricity was successfully applied. Resolved that the Secretary be desired to send to the different Members in arrears an Account of the Fines due from them. Messrs. Powell, Keenlyside, and Brumwell are appointed to read Papers at next ordinary Meeting, which is adjourned till the first Tuesday in February.

Feb. 7th, 1792.—Doctor Moorhouse in Chair. Doctor Ramsay duly elected. Mr. Mewburn proposed Mr. Irwin to be balloted for at next meeting. Mr. Powell was absent, and did not send a Paper. Mr. Keenlyside read a Case of Hydrothorax, in which the Digitalis was given with good Effects.

Mr. Brumwell read a Case of Mortification in the Hand, in which large doses of Laudanum was given with good Effects.

Doctor Moorhouse, Mr. Pringle, and the Secretary are appointed to read Papers at next ordinary Meeting.

April 3.—Mr. Ingham in Chair. Meeting adjourned till this day from first Tuesday in March. Dr. Wood duly elected.* Doctor Moorhouse read a Case of Colic, attended with obstinate Constipation, effectually relieved by the use of a Glyster of an Infusion of Tobacco. Mr. Pringle read a Case of strangulated Hernia, which, after resisting every other Remedy, was reduced on Bleeding ad Deliq. The Secretary read a Case of Jaundice which terminated fatally, with the appearances on Dissection. Doctor Young, Mr. Fife, and Mr. Surgeon are appointed to read Papers.

May 1st.—Same Chairman. Dr. Young read a Case of Fever, with some Observations on the Use of the Bark.

Mr. Fife read a Case in which a Hæmorrhage had taken place from the Eyes, Nostrils, Ears, and Mouth, attended with many other symptoms, which terminated favourably. Mr. Surgeon read a Case of Hydrothorax, in which the operation of Paracentesis was successfully performed, after every Remedy had been tried without Effect. Mr. Pringle made a Motion that only two Gentlemen instead of three should be appointed at each Meeting to read a Paper or Essay at the next succeeding Meeting; Mr. Anderson seconded; the Motion unanimously agreed to. Mr. Hawdon and Doctor Ramsay appointed to read Papers at next ordinary Meeting, which is adjourned till first Tuesday in July.

July 3d.—Mr. Horn in the Chair. A Paper was received, addressed to the Secretary, without any name affixed, the reading of which, on that Account, was deferred till the Author was discovered.

[No further notice occurs of this letter.]

The Society having taken into consideration the Incivility of the absentee Members, and finding that every mild expedient hitherto

* No notice of the election of Mr. Irwin; his name does not appear in the official list.

had failed, feel themselves under the necessity of coming to a resolution more fitted to answer their Intentions. Resolved, therefore, unanimously, upon Motion being made and seconded, that whatever Members of this Society shall absent themselves for three Meetings successively, and shall, upon application from the Secretary for the purpose, neglect to pay their Fines within a month from the notice, according to the Laws of the Association, they shall be expelled, and their expulsion entered in the Minutes of the Society.

Resolved, that as often as the Secretary finds it necessary to send an Account of Arrears, due by any Member, that the above resolution be also communicated to him.

Resolved, that Mr. Horn, V.P., and the Secretary be requested to wait upon Mr. Maxwell, in order to get his Fines settled. Drs. Wood and Hall appointed to read Papers at next ordinary Meeting, which stands adjourned till the first Tuesday in September.

Doctor Ramsay read a Case of Hydrocephalus internus, with observations on the Disease and Method of Cure.

Sept. 4.—Doctor Moorhouse in Chair. Doctor Pearson was duly elected. Mr. Horn and the Secretary waited upon Mr. Maxwell, and received the Fines he was indebted to the Society.

Doctor Wood read a Paper on the Effects of the application and abstraction of stimuli on the Human Body, with some Remarks on the Nature and Cure of Typhus. Doctor Hall was absent, and did not send his Paper. Doctors Pemberton and Clark were appointed to read Papers at next ordinary Meeting.

Oct. 2.—Mr. Ingham in Chair. Doctor Pemberton read a Case of Obstinate Hiccup, in which various remedies were used, and the Patient recovered. Dr. Clark read two Cases of Ischuria vesicalis with the method of treatment.

NOTE ON THE TREATMENT OF INFANTILE CONVULSIONS BY ANÆSTHETICS.

By C. STENNET REDMOND, L.K.&Q.C.P.I.

Sir,—Most of the writers with whose views I have had an opportunity of making myself conversant, deprecate, if they do not absolutely negate the use of chloroform in the convulsions of children.

Thus, Quain says, "We know of no rational or successful means of cutting short an ordinary attack of convulsions, and, in the face of such an attack, we should be cautious lest evil might be done. When we have to do with a succession of attacks quickly following one another, and which have already lasted some time, the careful administration of chloroform *may* be tried, as it is very serviceable where a "status convulsivus" occurs in children or in adults; though it would be *not desirable* to have recourse to it *in infants.*"

Again, Bristowe merely observes, "Chloroform inhalations *may* also be had recourse to."

Dr. Taylor (Manual of Medicine) says "If the fits are very violent and continuous, chloroform *may* be cautiously administered. It will, promptly, check the convulsions; but they will probably return soon after it is withdrawn, when it *may* be again given for a few minutes."

My experience is that in the great majority of cases wherein I have administered chloroform or A. E. C. mist., a single administration only, if sufficiently prolonged, has been necessary.

Under the term convulsions, I refer, of course, more especially, to that form excited by peripheral irritation, and occurring notably, through irritation in the field of distribution of the 5th and pneumogastric nerves, and due, most commonly, to one of three causes—teething, worms, or disordered bowels, from irritating and undigestible ingesta. The last is, perhaps, the most common in large manufacturing centres like our own, and is mainly found among the children of the lower middle or poorer classes, whose hygienic surroundings are usually defective, and little or no attention is given, either from ignorance or carelessness, to the proper feeding of infants—the rule being to give them a share of what is going in the house, including the strong decoction of tannin "yclept" tea, bloaters, Dutch cheese, and so forth.

Under such circumstances, it is not to be wondered that this class of cases forms an item of frequent worry and anxiety to the general practitioner, more especially, who is always sent for in a desperate hurry, and expected forthwith to relieve the anxiety of the parent and the apparently very alarming condition of the child.

The prejudice existing among even many of the more intelligent classes against the use of the hot bath, and the difficulty of getting it carried out, unless one either does it oneself, or waits to see it done, not forgetting the feeling of "smallness" incidental to being told at the next visit that one's injunctions in this respect had been disregarded, led me to cast about for some less objectionable and more readily applicable medicament.

The knowledge of the undoubted value of chloroform in controlling the convulsions of the puerperal state, and my own experience, in not a few instances, of its valuable remedial agency therein, suggested the propriety of trying its effect in infantile convulsions. The result was so satisfactory that for the last five or six years it has been my invariable custom when called to a case of convulsions to take with me and administer, formerly chloroform, latterly A. E. C. mist., with the almost universal result that immediate relief is given to the parents' mental, and the infant's, physical sufferings. And then having relieved the urgent symptoms, one next proceeds to discover, if possible, and modify or remove the cause.

The procedure is simple. The infant is laid on its side on a bed, with its head low, and vinegar and water cloths applied thereto, the clothes all loosed round neck and chest, the feet and legs wrapped in a warm flannel of any kind, and A.E.C. mist is administered in the ordinary way on a napkin folded cone shape, plenty of air, and plenty of anæsthetic. Sometimes a second or third consecutive administration is called for, but as a rule the child passes into a sound sleep, which lasts two to three hours or more, and, directly it wakes, a full dose of calomel is given, if bowels are not open, and proportionate doses of a bromide of potass and chloral hydrate mixture repeated every two or three hours till all irritation has passed away, when the treatment appropriate to the presumed or ostensible cause is duly carried out.

I have not kept any detailed list of my cases, but I am decidedly within the mark when I say that I have carried out this treatment in over 200 cases, with the most satisfactory immediate results.

The following recent case may be cited as a typical one:—At 6 p.m. on 21st January ult., I was called to see a strong, well-grown, and well-nourished boy, aged 3 years 5 months, who had, while playing about, been suddenly seized with violent convulsions. On arrival, I found him perfectly rigid, so much so that I could not flex his arms or legs without using unjustifiable force.

I had attended the child for a similar attack in July, 1889, consequently the mother, remembering the previous treatment, had laid him in bed, and applied cold to head and warmth to feet and legs, loosened clothes, &c. The seizure was most severe and prolonged, and I administered ℥ij. of A.E.C. mist. in 40 minutes before I got him thoroughly over. He slept soundly until 9 p.m.,

when a dose of the following mixture was given :—Chloral, ʒss, pot. brom. syrup grs. xxiv, ad. ℥ii ; ʒii, 2-3-4 hours.

Thurs. 22nd, 9 a.m.—An excellent night ; 4 doses of mist, given; pulse tranquil ; tongue very foul ; bowels not opened since yesterday morning ; to have gr. vi calomel c. sugar = parts statim, repeated at night if necessary ; milk and lime water *ad lib.*, no solid food ; to be kept in bed in a dark room. Enquiry elicited the fact that the child had been allowed to partake of his parents' supper of cold beefsteak pie the night before the attack.

Friday, 23rd.—Much better ; bowels very freely opened, but both powders required ; ordered mist. mag. cum rheo. four times daily, which he took for three or four days till tongue cleaned ; diet, bread and milk and rice pudding.

30th.—Brought to surgery perfectly well, and no further treatment required.

I may add that since the former attack in July, 1889, the child has enjoyed excellent health.

In conclusion, it may be not devoid of interest to observe that, even in symptomatic convulsions, an anæsthetic is a valuable palliative.

Thus, in February and March, 1886, I was attending an infant, aged four months, suffering from tubercular meningitis, in which convulsions were a frequent, persistent, and distressing symptom, and where potass bromide, and small doses of chloral, failed to relieve. Here the A. E. C. m. was given whenever the attacks came on, for a period of three weeks prior to death, either by the trained nurse in attendance, or one of the parents, who assured me afterwards of the great relief it was to their feelings to have at command the means of at once alleviating the sufferings of their doomed little one.

This case also illustrates the absence of the supposed contra-indication to the use of anæsthetics in young infants.

LARGE EXTRA PERITONEAL DERMOID CYST, SUCCESSFULLY REMOVED THROUGH AN INCISION ACROSS THE PERINÆUM, MIDWAY BETWEEN THE ANUS AND THE COCCYX.

By FREDERICK PAGE, Surgeon to the Royal Infirmary, Newcastle-upon-Tyne.

M. M., aged 47 years, was admitted into the Royal Infirmary, Newcastle-upon-Tyne, March 20th, 1889, under the care of Dr. Limont, supposed to be suffering from an ovarian tumour. She was a pale, flabby, broken-down looking woman, and gave the following history :—She married at the age of 19, has given birth to seven children, and has twice miscarried. All her labours were difficult. After the birth of her fifth child, twenty years ago, she first noticed a swelling in the lower part of the belly. This swelling has slowly, but steadily, increased. Her sixth labour was more difficult than any previous one. Her seventh, which took place eleven years ago, could not be completed naturally, as all the others had been, and, after the failure of forceps, craniotomy was performed. For years she has had an offensive vaginal discharge, and experienced increasing difficulty in defæcation and micturition. She ceased to menstruate three years ago. For the last two years she has been aware of a tumour occupying the pelvis, and encroaching upon the vagina.

On March 28th I was asked by Dr. Limont to see the case. Immediately below the navel, a tumour, the size of a cricket ball, could be felt in the belly. It was round, hard, and regular, and could be moved from side to side. Behind this was a larger growth, reaching as high as the umbilicus, and downwards so as to occupy the pelvis. The patient was now put under chloroform, and in the lithotomy position. The posterior wall of the vagina protruded slightly through the vulva. With some difficulty the two forefingers were introduced into the vagina, and the globular swelling, made out to be the uterus, thrust upwards. The vagina was much elongated. On introducing the finger into the rectum it was ascertained there was a growth behind, which displaced the rectum and posterior wall of the vagina forwards, and caused the elongation of the vagina by forcing the uterus upwards. This was the deeper growth already mentioned, and the question arose what was it? A coarse aspirating needle was passed into the anus, through the posterior wall of the rectum, backwards and upwards into the growth. Nothing flowed; but on withdrawing the needle, and passing through it a stilet, it was found to be blocked with yellow pultaceous material, imbedded in which was a hair. It was evident a dermoid cyst had been punctured. Two days after this

examination, on March 30th, patient's temperature rose, and continued to rise, till on the evening of the 31st it stood at 103. She vomited several times, and had a rigor, followed by sweating. On the morning of April 1st she was in a very critical condition. The perinæum was in a state of acute inflammatory œdema, bulging red, and tense. She was placed under chloroform, and in the lithotomy position. A semilunar incision, some six inches long, was made across the perinæum, its centre corresponding to a point midway between the anus and the coccyx, and deepened till the cyst was opened, when at once the contents began to exude. Pressure over the abdomen, by squeezing out the thick, putty-like material, mixed with hair, with which the cyst was filled, rapidly reduced the size of the tumour, and it was emptied with a table-spoon. By seizing the margin of the cyst, and passing the hand upwards between it and the tissues, it was readily enucleated, and withdrawn. To do this the hand, and greater part of the forearm, were buried in the wound. There was little bleeding. Large drainage tubes were introduced, and the wound closed with sutures. The after treatment consisted simply in keeping the vagina and wound frequently syringed with an antiseptic fluid, and carefully nursing the patient. On the 21st of April the temperature was normal, and early in May patient went home. She is now (December, 1890) quite well; the only inconvenience she suffers being a tendency to prolapse of the anterior wall of the vagina.

The cyst, with its contents, weighed three pounds. It is very thin, and to its inner surface numerous hairs are attached. In its dried condition, stuffed, its circumference in one direction is 29 inches, in the other $17\frac{1}{2}$. It has no pedicle. This is the specimen.

Retro-rectal dermoids have been described in Germany a few times. Sanger removed one by means of a vertical incision in the perinæum. I believe one or two cases have been recently brought before a London Medical Society, though I have not seen them reported. I take it, however, these growths are not common. How and where they originate is an interesting pathological question. This was certainly not a perinæal growth. My colleague, Dr. Limont, is of opinion it developed in the broad ligament, springing probably from the parovarium on the right side. As it grew it separated the layers of the broad ligament, till, emerging from between them, it expanded behind the peritoneum upwards towards the diaphragm, and downwards towards the perinæum. In its downward progress it lay to the right of the rectum, and, continuing to increase, passed behind it, and reached the perinæum. In the *British Medical Journal* for January 17th, 1885, Fancourt Barnes relates the history of a case of labour obstructed by a pelvic growth, which, on *post-mortem* examination,

was found to be a suppurating dermoid cyst, "attached to the posterior aspect of the pelvic margin by a peduncle, narrow at the tumour, and expanding out on the sacrum in a digitate manner." Dr. Barnes tells me "the seat of origin could not be made out, because all the parts were so matted together. Dr. Burnet, however, did not think it originated in the broad ligament." It appeared to Dr. Barnes to be in Douglas's pouch.

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